

PUBLIC HEALTH REPORTS

VOL. 47

JANUARY 22, 1932

NO. 4

CURRENT PREVALENCE OF COMMUNICABLE DISEASES IN THE UNITED STATES¹

December 6, 1931-January 2, 1932

The prevalence of certain important communicable diseases, as indicated by weekly telegraphic reports from State health departments to the Public Health Service, is summarized in this report. The underlying statistical data are published weekly in the Public Health Reports, under the section entitled "Prevalence of disease."

Measles.—Reports indicated a continued seasonal increase in measles during the current period. The rate has been slightly higher since the beginning of the rise than it was during the corresponding period of last year, but for the present 4-week period the number of cases (14,298) was lower than that for any of the years from 1926 to 1929, inclusive. The disease continued most prevalent in the Atlantic Coast regions. The New England and Middle Atlantic groups reported 9,545 cases for the current period, as compared with 4,487 for the same period in 1930 and 3,813 in 1929; the South Atlantic States reported 1,318 for the current period as against 579 for the corresponding period in 1930 and 560 in 1929. All other regions showed decreases ranging from 9 per cent in the Mountain and Pacific group to 81 per cent in the South Central group.

Poliomyelitis.—The incidence of poliomyelitis declined more than 60 per cent during the month of December. In relation to the two preceding years the number of cases (266) was about 80 per cent of the number reported for the corresponding period last year, but it was still more than twice the number reported in 1929. In the New England and Middle Atlantic States the incidence (109 cases) was still considerably in excess of that for the corresponding period in the two preceding years, 58 cases being reported for this period in 1930 and 31 cases in 1929. All other regions either approximated last year's figure or showed very significant decreases. With one exception, the South Atlantic, all regions reported a higher incidence of the disease in 1931 than in 1929.

Scarlet fever.—For the country as a whole, the scarlet fever incidence, although showing the usual seasonal rise, was approximately the same as that for the corresponding period last year and was about 10 per cent below that for 1929. A comparison of geographic areas

¹ From the Office of Statistical Investigations, U. S. Public Health Service. The number of States included for the various diseases are as follows: Typhoid fever, 27; poliomyelitis, 48; meningococcus meningitis, 48; smallpox, 48; measles, 45; diphtheria, 47; scarlet fever, 47; influenza, 39 States and New York City. The District of Columbia is counted as a State in these reports.

shows that the disease was slightly more prevalent in the North Atlantic, South Central, and Mountain and Pacific groups than at the same time last year, but the other groups reported decreases as follows: East North Central, 9 per cent; West North Central, 22 per cent; South Atlantic, 18 per cent.

Meningococcus meningitis.—The relatively low incidence of meningococcus meningitis which has prevailed throughout the entire year was maintained during the 4-week period ended January 2. In fact, the number of cases reported (280) was the lowest reported for the corresponding period in four years. All regions shared in this favorable situation. For the second time since the beginning of 1931 the number of cases reported for a 4-week period from the South Atlantic States fell below the number reported for the corresponding period in both 1930 and 1929.

Typhoid fever.—The reported incidence of typhoid fever (1,173 cases) for the current period represented a drop of about 40 per cent since the preceding 4-week period—a normal rate of decline for the season. The incidence compared very favorably with the incidence (1,266 cases) during the same period in 1930, but was about 40 per cent in excess of the incidence in 1929. The only regions showing increases over last year were the South Atlantic and South Central; the increase over 1929 was participated in by all regions except the West North Central and Mountain and Pacific sections. In the former group the number of cases reported for the current period was 56, as compared with 71 cases for the same period in 1930 and 81 cases in 1929. The Mountain and Pacific group reported 80 cases for the current period, as against 95 for the same period in 1930 and 100 cases in 1929.

Diphtheria.—Although the usual seasonal decrease of diphtheria was apparent in all parts of the country, the number of cases (7,246) for the current period was still about 22 per cent in excess of the number reported for the same period last year. Diphtheria maintained a very low level during the year 1930, and the current incidence is considerably below the years preceding 1930. Since the beginning of the seasonal rise in October, 1931, all regions except the New England and Middle Atlantic have reported more cases of diphtheria in each 4-week period than occurred during the corresponding periods last year. In the New England and Middle Atlantic States the numbers of cases for the current period and for several preceding 4-week periods have averaged about 80 per cent of the numbers for the same periods last year and about 50 per cent of the cases in 1929. In the South Central States the disease has been considerably more prevalent than in either of the years 1930 or 1929.

Influenza.—The number of cases of influenza reported for the 4-week period ended January 2 was 3,554, representing a decrease of about 25 per cent from last year's figure for the same period and a

50 per cent decrease from the number of cases reported in 1929. A decrease in the number of cases was reported from all sections except the far western group of States. There, while the number of cases was not large (662), it was almost twice the number reported for the corresponding period in 1930, and represented an increase of about 60 per cent over the same period of 1929.

Smallpox.—The number of cases of smallpox (1,238) reported for the current period was the lowest recorded for the corresponding period in six years. All regions showed significant decreases except the New England and Middle Atlantic. In those regions the disease has been unusually prevalent for the past few months, but it has been confined mostly to the States of Vermont, Connecticut, and New York. Out of a total of 166 cases for the entire region, those States reported all except 2 cases, the numbers for the individual States being 52 cases, 61 cases, and 51 cases, respectively.

Mortality, all causes.—The average mortality rate from all causes in large cities, as reported by the Bureau of the Census, was 11.4, which was still the lowest rate in six years for the corresponding period.

A FURTHER STUDY OF BRUCELLA INFECTION IN IOWA

By A. V. HARDY, *Acting Assistant Surgeon, United States Public Health Service, Associate Professor of Hygiene and Preventive Medicine, University of Iowa College of Medicine*; C. F. JORDAN, *Acting Assistant Surgeon, United States Public Health Service, Assistant Professor of Preventive Medicine, University of Iowa College of Medicine*; and I. H. BORTS, *Chief Bacteriologist of the Laboratories of the Iowa State Department of Health*

The data here presented have been collected during the 12 months immediately following the period covered by our last report¹ (March 1, 1930, to March 1, 1931). Field investigations were discontinued early in 1930, hence the information obtained in this report was elicited chiefly by correspondence. With the further cooperation of the Iowa State Department of Agriculture the serological testing of animals has been continued and extended. Significant data have also been obtained through the bacteriological study of animals suspected of being the source of human infections. The evidence, considered as supplementary to our earlier report, is offered with little comment.

PREVALENCE

Positive agglutination tests have been obtained during the 12-month period on blood specimens from 156 new cases. This represents a distinct decrease in comparison with the preceding year, and

¹ The observations on which this paper is based were made with the support and under the auspices of the Iowa State Department of Health and the department of preventive medicine of the Iowa State University, aided by a grant from the committee on research of the American Medical Association.

is probably accounted for partly through a loss of that interest in the disease which was stimulated by our field studies and partly through an increase in the number of agglutination tests performed by the private and city laboratories. The evidence, however, again justifies the assertion that the graver forms of the disease are of infrequent occurrence and that as a general health hazard undulant fever is of relatively minor importance.

DISTRIBUTION

Most of the cases occurred sporadically. In one instance three appeared to have a common source in one dairy herd. In another the probable source of two cases was a dairy regarded as being responsible for two previous human infections.

OCCUPATION

In 113 cases the physicians responded to our request for data by completing more or less fully, our report forms. The occupations were as follows: Farmers, 51 (46 per cent); farmers' wives, 9 (8 per cent); packing-house employees, 6 (5.5 per cent); butcher, 1 (1 per cent); stock buyer, 1 (1 per cent); laborers, professional or business men, 28 (25 per cent); housewives, 10 (9 per cent); and school children 5 (4.5 per cent).

SEX

There were 89 (79.5 per cent) males and 23 (20.5 per cent) females. Of 40 cases reported as having had no contact with livestock, 23 (57.5 per cent) were males and 17 (42.5 per cent) were females.

AGE

The distribution by age groups of the cases in which this information was recorded is shown in Table 1.

TABLE 1—*Distribution of cases by age groups*

Age (years)	Total	Males	Females	Age (years)	Total	Males	Females
0-4.....	0	0	0	45-49.....	9	6	3
5-9.....	0	0	0	50-54.....	5	2	3
10-14.....	4	4	0	55-59.....	5	1	4
15-19.....	8	8	0	60-64.....	5	3	2
20-24.....	9	7	2	65-69.....	0	0	0
25-29.....	16	15	1	70-74.....	0	0	0
30-34.....	18	16	2	75-79.....	2	1	1
35-39.....	12	9	3				
40-44.....	6	6	0	Total.....	102	81	21

SEASONAL DISTRIBUTION

The number of cases having their onset during the months of December, January, and February is considerably below the average for the other months. Whether this is dependent upon an actual seasonal variation in incidence or upon a seasonal variation in the accuracy of diagnosing undulant fever is still a matter for speculation.

SOURCE OF INFECTION

As in the previously reported series, these cases have been studied in three groups: (a) Those without direct contact with livestock or carcasses, (b) rural residents having had direct contact with livestock, and (c) urban residents with direct contact with livestock or carcasses. The data concerning the distribution by sex and occupation correspond essentially with the previously reported cases, as does also the information concerning diet. The serological findings on the animals directly or indirectly related to these infections are of particular importance. These are summarized in Tables 2 and 3. The classification of the herds and of individual reactions as positive, doubtful, or negative corresponds with that used in our earlier report. Related to each herd of hogs and to each herd of cattle in Group B, there was one human infection. However, in investigating the 27 cases of undulant fever in Group A (Table 2), 34 herds of cattle were tested. Four of the patients obtained dairy products from more than one herd, but all animals related to one case were considered together.

TABLE 2.—Results of serological studies of dairy cattle

Group	Classification of herds	Number of related cases of undulant fever	Number of animals tested	Serological findings		
				Positive	Doubtful	Negative
A. Herds related to patients having no direct contact with livestock.	Positive...	20	556	177	47	332
Do.....	Doubtful	1	6	-----	1	5
Do.....	Negative	6	13	-----	-----	13
Total.....		27	575	177	48	350
B. Herds related to patients having direct contact with livestock.	Positive...	19	217	55	16	146
Do.....	Doubtful	6	36	-----	10	26
Do.....	Negative	15	123	-----	-----	123
Total.....		40	376	55	26	295
Grand total.....		67	951	232	74	645

A comparison of the results of tests on the herds in Groups A and B is instructive. In Group A there were positive herds related to 20 cases; in Group B, to 19 cases. In Group A only doubtfully reacting or negative herds were found to account for seven human infections.

Of the six herds recorded as negative, in four but one cow was examined. It is possible that this was a suspected animal rather than an only one, or was merely the source of most of the milk used by the patient. In Group B the raw dairy products were derived exclusively or almost exclusively from a herd owned by the family directly affected by undulant fever. The owners, therefore, were concerned in having all animals examined; yet in 15 instances the dairy herds were entirely negative, and in 6 only doubtful reactors were found. Where the patients have had direct contact with the usual livestock on an Iowa farm, serological evidence points to cattle as a probable source of the infection in only about one-half of the cases; but where the patients have had no direct contact with livestock, a thorough examination of the dairy herds concerned usually reveals positive reactors.

A similar comparison is particularly striking when hogs are considered. In Table 3 (Group A) it is noted that in no instance were definitely positive hogs found on the same farms as the dairy herds supplying milk or cream to patients having no direct contact with livestock. Where the patient had direct contact (Group B), more than one-half of the herds of hogs proved to be positive. Hogs, therefore, must be given serious consideration as the source of infection among Iowa farmers.

TABLE 3.—*Results of serological studies of hogs*

Group	Classification of herds	Number of related cases of undulant fever	Number of animals tested	Serological findings		
				Positive	Doubtful	Negative
A. Hogs on the same farms as the dairy herds, related to patients having no direct contact with livestock.	Positive...	0	0	0	0	0
Do.....	Doubtful ..	2	9	-----	4	5
Do.....	Negative...	9	59	-----	-----	59
Total		11	68	0	4	64
B. Hogs related to patients having direct contact with livestock.	Positive...	16	175	38	18	119
Do.....	Negative...	14	111	-----	-----	111
Total		30	286	38	18	230
Grand total		41	354	38	22	294

In 30 instances in which there had been direct contact with both cattle and hogs, the herds concerned were tested serologically. On three farms positive cattle and hogs were found; on two farms all animals were negative. In 10 instances cattle were positive and hogs negative, and in 11 instances hogs were positive and cattle negative. In one instance there were positive cattle and doubtful hogs; in two, doubtful cattle and positive hogs; in one, doubtful cattle and negative hogs. Again, these findings indicate that cattle and hogs

are of about equal importance as the source of *Brucella* infections among Iowa farmers. The evidence, supported by the bacteriological studies here reported, seems also to justify the opinion that the transmission of infection from hogs to cattle or cattle to hogs is unusual, if it occurs at all.

As in our earlier study we found that the urban cases having direct contact with livestock or carcasses (Group C) were men employed in the hog division of packing plants.

In Iowa, therefore, cattle appear to be responsible for more than half of the human infections with *Br. melitensis*. However, since the disease of porcine origin is of greater severity, hogs and cattle in this locality are of equal significance as a source of undulant fever morbidity.

BACTERIOLOGICAL STUDIES

During the year we have obtained from the blood cultures of 19 patients 20 additional strains of *Brucella*. These, classified as previously described, include 10 porcine strains, 9 bovine, and 1 *melitensis*. Concerning two cases, one of which yielded a bovine and one a porcine strain, significant data have not been obtained. Jordan and Borts (2) have reported in full the case from which a bovine and a *melitensis* strain were isolated. Two porcine organisms were isolated from the employees of packing plants. Each of these men had contact with hogs only. Two bovine strains were obtained from individuals having no contact with livestock. The remaining 12 strains were obtained from farm residents who had contact with both cattle and hogs. In four of the five instances in which a bovine strain was concerned, animal examinations were made. In all, the cattle were found to be positive; in two, hogs were found to be negative, in one of which a doubtfully reacting hog was found, while in the other no hogs were examined. Also, in four of the seven instances in which the porcine strain was concerned animal examinations were carried out. In each instance no reacting cattle were found. In three of the cases positively reacting hogs were present, and in the fourth no hogs were examined.

Bacteriological studies of positive dairy herds have, during the past year, been much more extensive than previously. In our earlier reports we recorded the isolation of *Brucella* from dairy products in three cases. In the study of the past year 34 additional strains have been obtained. Some of these are related to the cases previously reported; hence a summary of all the bacteriological findings on livestock is included.

From the milk of animals in dairy herds suspected of being the source of 14 cases of undulant fever we have isolated 28 strains of *Brucella*. Single tests only were done on a total of 44 positively reacting cows. The 9 additional strains were obtained from 12

positively reacting animals from herds which were not the suspected source of any known cases of undulant fever. In three instances a serologically positive herd yielded negative bacteriological results. The sale of reacting cows may well account for these findings, as in 1 of the 3 herds the 1 positive animal had been sold, and bacteriological studies on the 2 doubtful reactors proved to be negative; and in the other 2 instances only 1 of 3 and 2 of 5 positively reacting cows could be tested. All strains isolated from cattle have the characteristics of the *abortus* type of *Brucella melitensis*. As yet we have not been successful in obtaining for examination the milk from cattle on a farm where both positively reacting cattle and hogs were found, nor have we attempted any bacteriological studies on hogs.

Particularly significant are the three cases in which organisms have been obtained from a human case and from the animals suspected of being the source of that infection. In each case the type of organism isolated from the human source corresponded with the organisms obtained from the suspected animal; all were of the bovine variety. Epidemiological notes on these three cases are as follows:

Case 1.—W. D., male, aged 29, farmer. During July, August, and September of 1929 patient suffered a relatively mild attack of undulant fever. Blood drawn during the third week of illness agglutinated *Br. melitensis* var. *abortus* in a 1:320 dilution and culturally yielded *Br. melitensis* var. *abortus*. On the farm there was a herd of 27 cows. During the year preceding the patient's illness one cow had aborted and two had retained placentae. Nine of the cows were serologically positive and one was doubtful. Milk specimens from four of the positive reactors were shipped to the laboratory. By guinea-pig injection *Br. melitensis* var. *abortus* was isolated from one of these. This patient reported that he drank no milk, used very little cream, and purchased creamery butter prepared from pasteurized cream. He stated that prior to his illness he had cut his hand, but continued with his usual work and regularly milked, among other cows, the cow which had aborted.

Case 2.—A. B., male, aged 34, farmer. During May and June, 1930, patient was moderately ill with undulant fever. Blood drawn at the end of the second week agglutinated *Br. melitensis* in a titer of 1:640. A blood culture was received one week later. On the fifth subculture, made on the twentieth day of incubation, growth was obtained on the culture placed in the atmosphere containing 10 per cent CO₂, but not on the one incubated in the unmodified atmosphere. The growth was identified as *Br. melitensis* var. *abortus*. On the farm there were 15 cows and a large herd of hogs. There had been sporadic abortions among both cows and sows. All of the former and 21 of the latter were tested serologically. Three cows were positive and one reacted doubtfully. All hogs were negative. Cream from the milk of the three positive cows was inoculated into guinea pigs. *Br. melitensis* var. *abortus* was isolated from one. Patient stated that he used no milk or cream, but ate freely of homemade butter. He also cared for the cattle and aided with the milking.

Case 3.—G. L., male, patient in a tuberculosis hospital. He was admitted to the sanatorium during July, 1928, with a moderately advanced pulmonary tuberculosis. He improved satisfactorily and for several weeks prior to our study had been afebrile. During March, 1930, blood agglutination tests were performed on 138 patients in the hospital. The serum of G. L. agglutinated *Br. melitensis* in a

titer of 1:160. A blood culture was then obtained and from this *Br. melitensis* var. *abortus* was isolated. The patient stated that he felt well and was not found to have any evening elevation of temperature. Milk was supplied by the hospital herd. Of 65 cows, 33 were serologically positive. Milk samples from 8 positives were obtained, and from 7 of these *Br. melitensis* var. *abortus* was isolated. The patient had had no contact with these cows and no recent contact with any animals. He drank a large amount of raw milk from this herd. A repetition of the agglutination tests on this patient one and three months after the first examination gave titers of 1:80 and 1:40, respectively.

REFERENCES

- (1) National Institute of Health Bulletin No. 158.
- (2) Jordan, C. F., and Borts, I. H.: Double Infection by Organisms of the *Brucella* Group. Pub. Health Rep., 46: 2437-2443 (Oct. 9, 1931).

FINAL REPORT ON A RAT-FLEA SURVEY OF SAN JUAN, PORTO RICO

By A. L. CARRIÓN, *Department of Health of Porto Rico*

We (1) (2) (3) have already presented the annual results of three consecutive years of work on a rat-flea survey of San Juan, Porto Rico. This survey was carried out by the Bureau of Plague Prevention of the Insular Health Department with the cooperation of the United States Public Health Service. The present report has been prepared as a general summary of that work taken as a whole.

Activities were initiated on July 11, 1926, and were continued till June 30, 1929. During this period cage traps were distributed at the rate of 205 per day among 39 premises. Rats were obtained from only 1.8 per cent of the localities trapped, and it is estimated that a proportion of 4.2 rodents were caught per thousand traps set.

The total number of live rats captured reached 1,005. Of these, 800 were adults and 205 either young or partially grown. The number of females exceeded that of males by 119. About 30 per cent of the females, or 168, were found pregnant bearing an average of 7.5 embryos each. The highest number of embryos observed in a single animal was 11.

Table 1 shows the distribution of the rats by zones:

TABLE 1.—Rats captured in different zones

Year	Zone 1 (docks)	Zone 2 (water front)	Zone 3 (com- mercial)	Zone 4 (resi- dential)	Total
1926-27	140	77	20	123	360
1927-28	151	58	29	158	396
1928-29	93	28	60	68	249
Total	384	163	109	349	1,005

It will be seen that zones 1 and 4 supplied considerably higher numbers than zones 2 and 3. This was probably due to the fact that trapping was more active at the former locations.

Table 2 has been prepared to demonstrate the actual concentration of the species in the different zones. In this table, rat prevalence is represented by the average number of rats captured per 1,000 traps set.

TABLE 2.—Comparative concentration of the species in different zones

	Zone 1 (docks)	Zone 2 (water- front)	Zone 3 (com- mercial)	Zone 4 (resi- dential)
Total traps set.....	83,762	14,873	33,973	34,625
Total rats captured.....	272	105	101	231
Average number of rats per 1,000 traps set.....	3.2	7	2.97	6.6

¹ The records available for this table cover almost, but not entirely, the 3-year period.

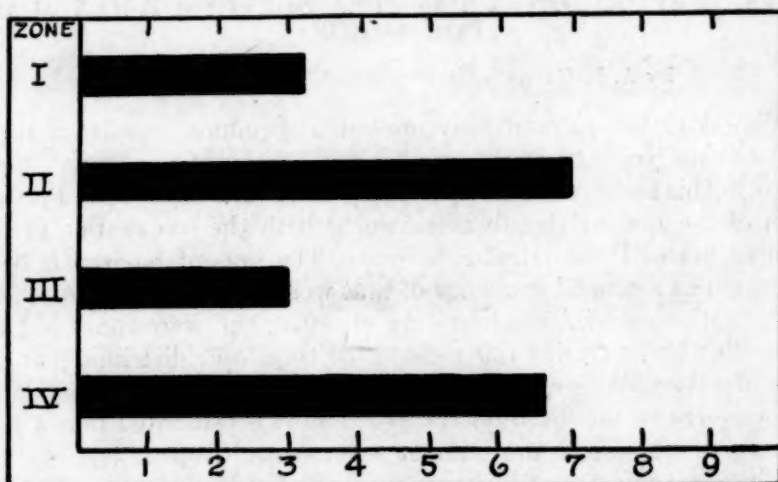


CHART 1.—Proportional concentration of rats in the four zones (average number of rats captured per 1,000 traps set)

According to this table the rat population of the city is shown to be more concentrated in the water front and residential sections, both of which show an index of approximately 7. In zones 1 and 3 the degree of infestation appears to be about half as great.

Rattus norvegicus has been the most prevalent species in practically all parts of the city, this variety alone representing about 72 per cent of the total catch. (See Table 3.) The remainder of the rodents consisted of *R. alexandrinus* and *R. rattus* in almost equal proportions. Chart 2 shows graphically the incidence of each species in the different zones.

Fleas were found on only 57 per cent of the rats captured, the total number of parasites collected reaching 7,145. Of these, 4,029 were males and 3,116 females, a ratio of 13:10. Classification re-

vealed the presence of five different species; but one of these alone, *Xenopsylla cheopis*, was found to represent 98.5 per cent of the total. (See Table 4.)

TABLE 3.—Classification of rats

Species	1926-27	1927-28	1928-29	Species, total	Species, percentage
<i>Rattus norvegicus</i>	287	296	140	723	72
<i>Rattus rattus</i>	41	45	49	135	13
<i>Rattus alexandrinus</i>	32	55	60	147	15
Total.....	360	396	249	1,005	100

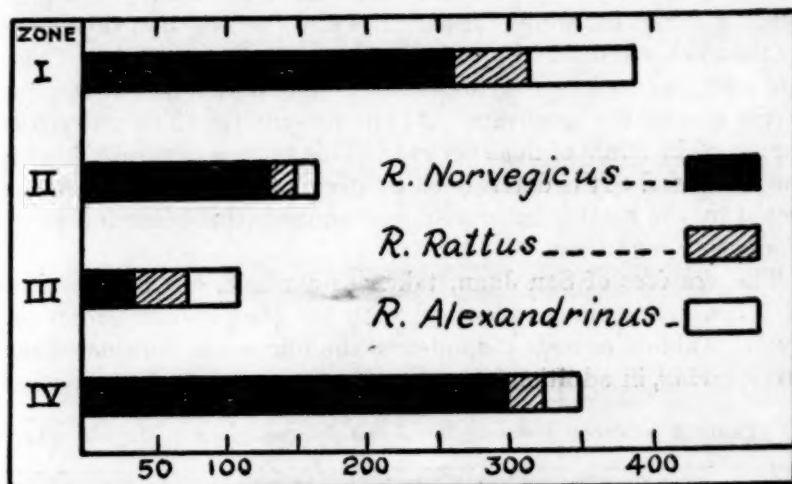


CHART 2.—Numbers and species of rats in each of the four zones

TABLE 4.—Tabulation of fleas as to species and sex

Species	Sex	1926-27	1927-28	1928-29	Total
<i>Xenopsylla cheopis</i>	Males.....	1,472	1,484	1,055	4,011
	Females.....	1,067	1,092	870	3,029
<i>Echidnophaga gallinacea</i>	Males.....	4	1	5	10
	Females.....	31	18	34	83
<i>Ctenocephalus canis or felis</i>	Males.....	1	1	2	4
	Females.....	1	1	2	4
<i>Pulex irritans</i>	Males.....			1	1
	Females.....		2	1	3
<i>Leptopsylla muscull</i>	Males.....		1		1
	Females.....				
Total.....		2,575	2,600	1,970	7,145

The highest number of fleas came from zone 1, the docks, which yielded 5,337 for the three years. Zone 4 furnished 793 specimens while the commercial and water-front districts followed with 630 and 385, respectively. (See Table 5.)

TABLE 5.—Fleas collected in different zones

Year	Zone 1 (docks)	Zone 2 (water front)	Zone 3 (com- mercial)	Zone 4 (resi- dential)	Total
1926-27.....	2,014	212	123	226	2,575
1927-28.....	2,258	32	121	189	2,600
1928-29.....	1,065	141	386	378	1,970
Total.....	5,337	385	630	793	7,145

As stated in a previous report, the absolute number of rat fleas collected does not always indicate the degree of infestation in a given region. Such conditions as the extent of the surveyed area, the number of rats examined for parasites and the length of time covered by the work will produce great variation in the total number of insects and may lead to false conclusions as to their actual rate of concentration among the local rats. At the present time flea prevalence is expressed in terms of fleas per rat. This ratio is generally known as the *flea index*. It is determined by dividing the number of fleas collected by the total number of rats examined, this being independent of all other conditions.

The *flea index* of San Juan, taken as a whole, has been estimated at 7.1, which is almost identical with the *cheopis index*, represented by 7. Table 6 records the index in the four zones considered separately, giving, in addition, the relative concentration of the rodents.

TABLE 6.—General summary of rat and flea conditions in the four zones

	Zone 1 (docks)	Zone 2 (water front)	Zone 3 (com- mercial)	Zone 4 (resi- dential)	Total
Total rats captured.....	384	163	109	349	1,005
Average number of rats per 1,000 traps set.....	3.2	7	2.97	6.6	4.2
Total fleas collected.....	5,337	385	630	793	7,145
Percentage of rats with fleas.....	85.4	33.7	73.4	31.2	56.9
Fleas per rat.....	13.9	2.4	5.8	3.5	7.1

It is evident from the above table that a high rat infestation does not always imply a corresponding hyperabundance of fleas. In zone 2, for example, where the concentration of rodents appears to be highest (7 rodents per 1,000 traps set), the *flea index* is only 2.4. In zone 1, on the other hand, the flea index is very high, almost 14 per rat, while the rodent index is slightly higher than 3.

The highest number of fleas on a single animal was obtained from an adult, female, *R. alexandrinus*, trapped in a fertilizer warehouse (Nitrate Agencies) located in the water-front section of the city. This rodent had at least 303 parasites. It may be of interest to add that two other rodents yielding 124 and 111 fleas, respectively, were also captured in the water-front area.

Table 7 was prepared to determine any possible predilection of the insects for any particular species of rat.

TABLE 7.—Comparative study of flea index in different species of rats

	<i>Rattus norvegicus</i>	<i>Rattus rattus</i>	<i>Rattus alexandrinus</i>	Total
Total rats per species.....	723	135	147	1,005
Rats with fleas.....	345	112	115	572
Percentage of rats with fleas.....	47.7	82.9	78.2	66.9
Total fleas per rat species.....	4,589	1,130	1,426	7,145
Fleas per rat.....	6.3	8.4	9.7	7.1

Although the index is evidently high for the three varieties of rodents, the above data would seem to point to the species *Rattus*

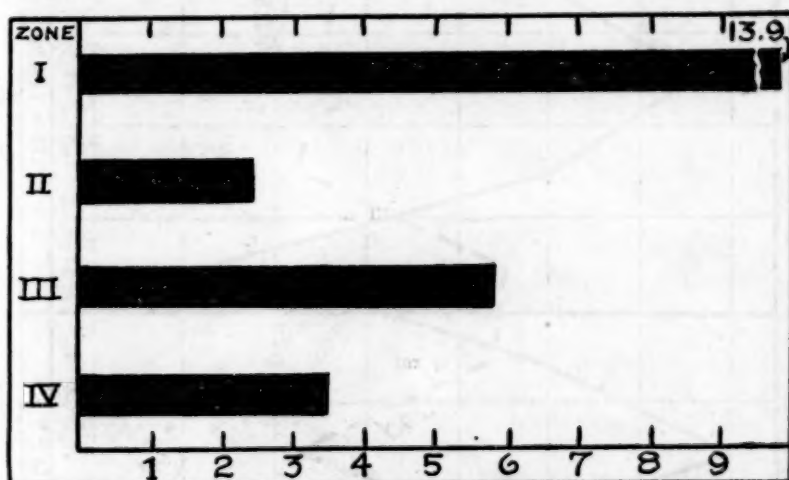


CHART 3.—Flea index in the different zones

alexandrinus and *Rattus rattus* as more desirable hosts. It must be admitted, however, that the number of rats examined is relatively too small and our field of observation too limited to warrant any final conclusion in this respect.

With a view to determining the relation of flea prevalence to atmospheric moisture and temperature, we have carried daily weather records which were kindly furnished at the end of each month by the office of the United States Weather Bureau at San Juan. These records, as well as the seasonal variations of the flea index for the three years, have been carefully tabulated in Charts 4 and 5. In plotting the curves for these charts it was deemed convenient to arrange the data by periods of three months.

As would be expected from our limited thermometrical changes, the temperature factor does not appear to have influenced flea prevalence in San Juan to any appreciable degree during this period. On

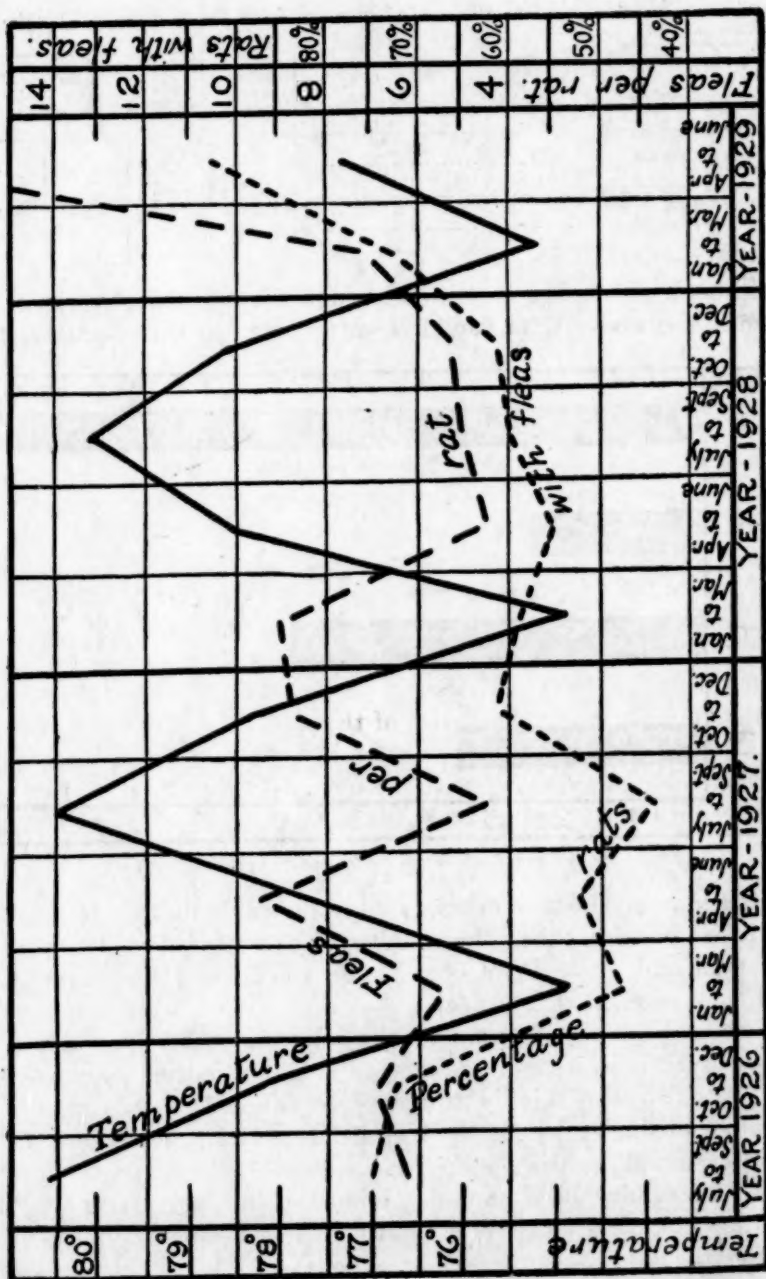


CHART 4.—Relation of temperature to flea prevalence

the contrary, a glance at Chart 5 will show, for most of the three years, a striking parallelism between the relative humidity curve and the line representing flea prevalence. The only marked deviation from this tendency took place toward the end of the survey during the months immediately following the cyclone of San Felipe. After the occurrence of this terrific phenomenon the whole city remained for some time under very abnormal conditions, our work was hindered in many ways, and there are several other reasons for considering the data for this period as rather unreliable. The favorable influence of a moist atmosphere on the different phases of flea breeding has been variously observed by different investigators. This particular weather condition is, indeed, one of the most important factors governing the prevailing degree of infestation in any given region. Our observations in San Juan, therefore, are only confirmatory.

SUMMARY

This survey includes three consecutive years of work. During this period a total of 1,005 live rats were captured. Of these, 72 per cent were classed as *Rattus norvegicus*, the rest of the rodents consisting of *Rattus rattus* and *Rattus alexandrinus* in proportions of 13 and 15 per cent, respectively. Fleas were obtained from almost 57 per cent of the animals, and their total number for the three years was 7,145, giving an index of 7.1 fleas per rat for San Juan. Five different species of fleas were encountered, but one of these alone, *Xenopsylla cheopis*, represented 98.5 per cent of the total catch. The concentration of rats is heaviest at the water front and residential sections, while the flea index is highest at the docks (almost 14 fleas per rat) and commercial district (almost 6 fleas per rat).

COMMENT

From a considerable amount of previous work the author is led to the conclusion that the rat population of San Juan is much greater than would be expected from the data here given. The present work, however, is thought to give a fair idea of the comparative concentration of rodents in different parts of the locality. So far as the flea findings are concerned, there is every reason to believe that they represent, in a general way, the true prevailing conditions in San Juan.

If zones 1 (docks) and 2 (water front) be considered as a single zone, and this is what they actually are topographically, this zone as a whole can evidently be declared more heavily infested with rats and fleas than any other portion of the city. It is important to add that *Rattus norvegicus* is the prevailing rat species in the community and that *Xenopsylla cheopis* is practically the only flea encountered. In other words, the rat and flea conditions at the water-front area (indeed,

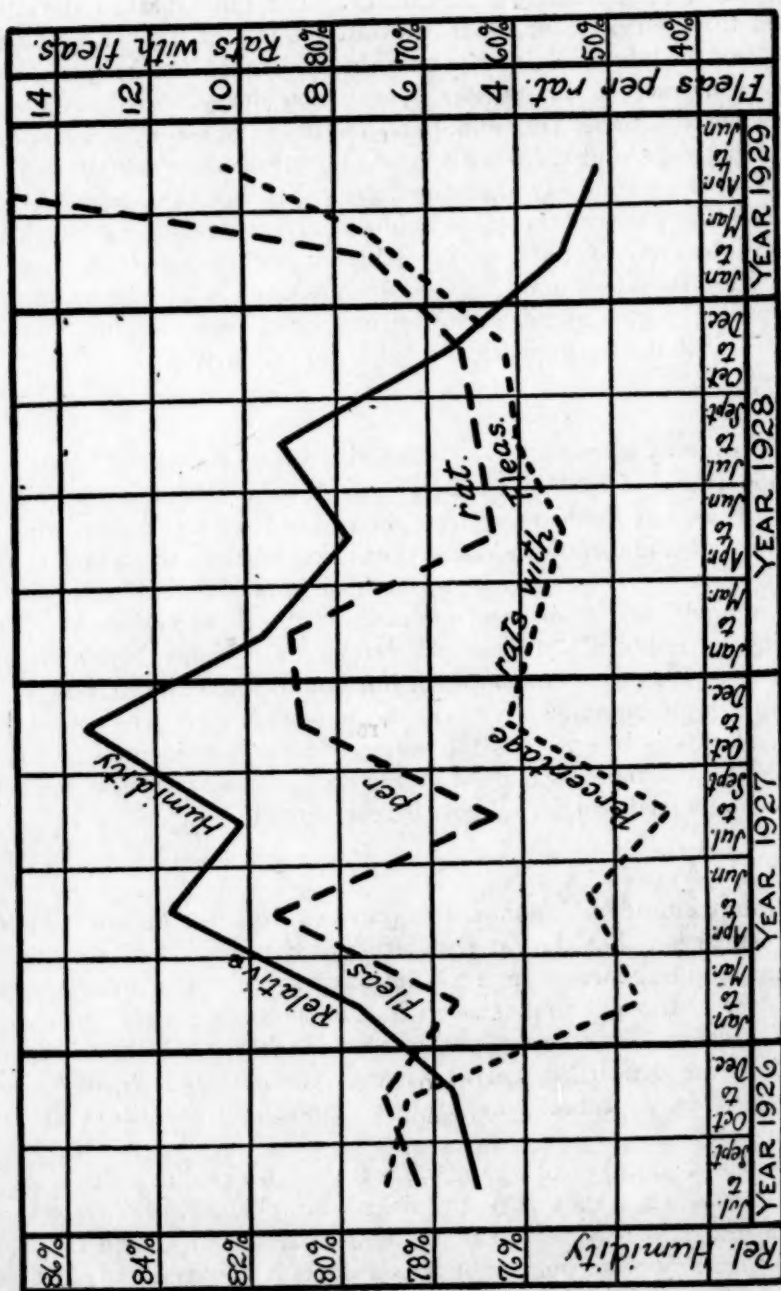


CHART 5.—Relation of atmospheric humidity to flea prevalence

all over the city) are particularly favorable for the development and spread of bubonic plague. This offers an explanation for the introduction of the disease into this port in 1912 and again in 1921, notwithstanding the most scrupulous precautionary measures taken by the United States Public Health Service at San Juan. Moreover, the fact that San Juan is frequently visited by ships stopping at the Canary Islands and other Mediterranean and South American ports where plague is often endemically or accidentally present, renders this city particularly exposed to future infections. Under such circumstances, permanent preventive measures at San Juan should be considered a fundamental and necessary public-health activity.

BIBLIOGRAPHY

- (1) Carrión, Arturo L.: (1927) Preliminary report on a rat-flea survey of the city of San Juan, Porto Rico. *P. R. Rev. Pub. Health & Trop. Med.*, 3: 131.
- (2) Carrión, Arturo L.: (1928) Preliminary report on a rat-flea survey of the city of San Juan, Porto Rico. (Second article.) *P. R. Rev. Pub. Health & Trop. Med.*, 4: 84. *Pub. Health Rep.*, 43: 611, March 16, 1928.
- (3) Carrión, Arturo L.: (1929) Third report on a rat-flea survey of the city of San Juan, Porto Rico. *P. R. Jour. Pub. Health & Trop. Med.*, 5: 158. *Pub. Health Rep.*, 45: 1515, July 4, 1930.

DEATH RATES IN A GROUP OF INSURED PERSONS

Rates for Principal Causes of Death for October, 1931

The accompanying table, taken from the Statistical Bulletin for November, 1931, issued by the Metropolitan Life Insurance Co., presents the mortality record of the industrial insurance department of the company for October as compared with that for the preceding month and for the corresponding month of last year. It also gives the cumulative rates for the period January-October for the years 1930 and 1931. The rates are based on a strength of approximately 19,000,000 insured persons in the United States and Canada. In recent years the general death rate in this more or less selected group of persons has averaged about 72 per cent of the rate for the registration area of the United States.

The death rate for this group for October, 1931, was 7.8 per 1,000, the lowest rate recorded for this month, reached also in October, 1927. Diphtheria, influenza, and pneumonia showed the greatest seasonal increases over the rates for the preceding month, but all were lower than for October of last year.

The Bulletin states:

It may now be stated that new low mortality rates for tuberculosis, diphtheria, diarrheal diseases, and puerperal conditions are virtually assured. The per cent reductions in their mortality rates over the previous minimal figures are as

follows: For tuberculosis, 7.3; for diphtheria, 32.8; for diarrheal diseases, 23.0; and for puerperal conditions, 9.7. Inasmuch as the death rates for all have continued favorable up to November 21, it would require unprecedentedly high mortality in the case of any of them during the remaining weeks of the year to bring its death rate up to, or in excess of, the previous low point.

The probability that new high mortality rates would be registered in 1931 for certain diseases has also become a practical certainty with the closer approach of the end of the year. It may now be stated, beyond peradventure, that higher death rates than ever before will be registered for cancer, diabetes, heart disease, and automobile fatalities.

Death rates (annual basis) per 100,000 for principal causes of death

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	Annual rate per 100,000 lives exposed ¹				
	October, 1931	Septem- ber, 1931	October, 1930	Cumulative, Janu- ary to October	
				1931	1930
Total, all causes.....	780.2	797.8	820.5	886.4	884.6
Typhoid fever.....	4.9	4.7	4.4	2.2	2.2
Measles.....	.5	.4	.3	3.4	3.2
Scarlet fever.....	1.9	1.2	1.3	3.2	2.6
Whooping cough.....	3.3	4.1	2.7	3.6	4.6
Diphtheria.....	4.0	2.2	5.1	3.9	5.8
Influenza.....	5.2	4.5	6.8	22.4	14.9
Tuberculosis (all forms).....	70.9	69.5	75.9	77.0	83.1
Tuberculosis of respiratory system.....	63.0	62.0	68.3	68.0	72.3
Cancer.....	79.7	70.4	83.4	82.3	78.2
Diabetes mellitus.....	18.4	17.8	17.1	20.6	18.6
Cerebral hemorrhage.....	55.7	55.9	56.4	61.2	60.4
Organic diseases of heart.....	125.8	129.7	132.1	148.7	145.5
Pneumonia (all forms).....	41.3	32.2	47.3	76.5	76.7
Other respiratory diseases.....	8.4	7.6	9.3	10.5	11.2
Diarrhea and enteritis.....	27.0	32.5	39.0	16.4	21.3
Bright's disease (chronic nephritis).....	58.4	61.2	62.7	66.3	68.3
Puerperal state.....	10.0	9.8	10.2	11.2	12.4
Suicides.....	10.0	10.4	10.1	9.8	9.7
Homicides.....	8.3	6.6	7.0	7.0	6.7
Other external causes (excluding suicides and homi- cides).....	57.0	63.4	60.2	61.2	63.3
Traumatism by automobiles.....	25.4	25.7	23.7	21.5	20.5
All other causes.....	189.4	204.7	189.8	198.9	195.7

¹ All figures in this table include insured infants under 1 year of age. The rates for 1931 are subject to slight corrections, since they are based on provisional estimates of lives exposed to risk.

COURT DECISION RELATING TO PUBLIC HEALTH

Regulation restricting inspection of tuberculosis records upheld.—(New York Supreme Court, Appellate Term; *McGowan v. Metropolitan Life Insurance Co. et al.*, 253 N. Y. S. 551; decided Nov. 5, 1931.) In an action brought by the beneficiary of a life insurance policy, the defendant company defended on the ground that the insured had made false representations regarding his health. In his application made in 1928, the insured denied that he had had any surgical operations, serious illness, or disease of the lungs; that he had been attended by a physician during the preceding five years; or that he had received treatment within that time in any dispensary, hospital, or sanitarium. The company asserted that it had learned

that the insured had pulmonary tuberculosis for several years before he applied for insurance and that he had been examined and had received clinical and hospital treatment at the hands of the New York City Health Department within the 5-year period preceding his application. The company accordingly applied for a subpoena directing the city health department to produce upon the trial all books and records showing the care, treatment, medical attendance, history, diagnosis, admission, discharge, and disposition, in the case of the insured, who died in 1929.

Section 1175 of the Greater New York Charter provided as follows:

The board of health may establish, as it shall deem wise and to promote the public good and public service, reasonable regulations as to the publicity of any of the papers, files, reports, records, and proceedings of the department of health; and may publish such information as may, in its opinion, be useful concerning births, deaths, marriages, sickness, and the general sanitary conditions of said city or any matter, place, or thing therein.

Pursuant to the authority thus granted, the board of health prescribed the following regulation:

A complete and adequate record shall be kept of every case of pulmonary tuberculosis examined or treated at a dispensary. The department of health may require, in its discretion, regular and uniform statistical reports relating to the examination, care, and treatment of all persons coming within the jurisdiction and control of such dispensary. Such records shall not be open to inspection by the public or to any person other than the representatives of the department of health of the city of New York and such persons as may be authorized by law to inspect such records.

The contention of the defendant company was that, since it was a party to the action, it was a person authorized by law to inspect the records in question, and hence the regulation did not forbid the granting of its motion. If, it contended, the regulation were construed otherwise, the department had exceeded its power under the charter and the rule was not a reasonable regulation but an unreasonable prohibition. The appellate term of the supreme court was of the opinion "that the mere fact that the applicant is a party to an action in which the records in question may be material or relevant to the issues does not make it a person authorized by law to inspect such records within the meaning of the regulation." "The purpose of the regulation," said the court, "was to forbid inspection by persons who, on general principles, might be entitled to inspect the records and to confine such inspection to persons who might be authorized by special provisions of law to make it." Neither did the court think that the regulation, so construed, was an unreasonable one. In this connection, it said:

* * * The papers submitted by the department in opposition to the application show that some regulation of this sort is highly desirable in the public interest. Persons suffering from contagious or infectious diseases, includ-

ing sufferers from tuberculosis, must be assured of the greatest secrecy in dealing with their cases before their full cooperation with the public health authorities can be expected. The highly useful work of the department of health might be seriously interfered with to the prejudice of the community if its records in such cases were known to be subject to disclosure at the demand of any one having an interest in learning their contents.

DEATHS DURING WEEK ENDED JANUARY 2, 1932

Summary of information received by telegraph from industrial insurance companies for the week ended January 2, 1932, and corresponding week of 1931. (From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce)

	Week ended Jan. 2, 1932	Corresponding week, 1931
Policies in force.....	74, 151, 074	74, 607, 778
Number of death claims.....	13, 832	12, 754
Death claims per 1,000 policies in force, annual rate.....	9. 7	8. 9
Death claims per 1,000 policies, 53 weeks, annual rate.....	9. 6	9. 5

Deaths¹ from all causes in certain large cities of the United States during the week ended January 2, 1932, infant mortality, annual death rate, and comparison with corresponding week of 1931. (From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce)

[The rates furnished in this summary are based upon mid-year population estimates derived from the 1930 census]

City	Week ended Jan. 2, 1932				Corresponding week, 1931		Death rate ² for 53 weeks ended—	
	Total deaths	Death rate ¹	Deaths under 1 year	Infant mortality rate ¹	Death rate ¹	Deaths under 1 year	Jan. 2, 1932	Jan. 3, 1931
Total (82 cities).....	8, 256	12.0	594	48	13.6	819	11.8	11.9
Akron.....	45	8.9	6	59	6.3	3	7.6	7.8
Albany ³	28	11.3	2	40	11.4	2	14.1	14.7
Atlanta ⁴	94	17.7	8	79	20.5	9	14.9	15.4
White.....	50	14.1	4	60	15.3	6	11.5	11.5
Colored.....	44	24.6	4	115	31.0	3	21.6	23.2
Baltimore ⁵	247	15.8	25	87	16.1	24	14.2	14.0
White.....	189	14.8	17	76	14.3	17	12.9	12.7
Colored.....	58	20.6	8	128	24.3	7	19.9	19.7
Birmingham ⁶	76	14.7	10	100	16.3	9	13.0	13.6
White.....	38	11.9	6	102	10.3	2	10.0	10.1
Colored.....	38	19.3	4	98	26.1	7	17.9	19.3
Boston.....	199	13.2	14	40	18.9	25	14.1	14.1
Bridgeport.....	35	12.4	4	67	12.4	4	11.1	10.9
Buffalo.....	144	12.9	8	36	13.8	25	12.8	12.9
Cambridge.....	19	8.7	2	41	17.4	1	12.0	12.0
Camden.....	37	16.2	2	35	21.1	6	14.2	13.4
Canton.....	22	10.7	5	123	8.9	1	9.9	9.8
Chicago ¹	733	11.1	43	39	11.5	59	10.4	10.4
Cincinnati.....	132	15.1	12	72	14.5	6	15.6	15.5
Cleveland.....	218	12.5	17	50	11.1	19	11.0	11.0
Columbus.....	81	14.3	5	49	14.5	9	13.4	15.3
Dallas ⁶	40	7.6	3	—	12.1	12	11.0	11.5
White.....	31	7.2	2	—	11.8	9	9.7	10.5
Colored.....	9	9.9	1	—	13.8	3	17.2	16.0
Dayton.....	43	9.7	0	0	11.5	1	10.4	9.7
Denver.....	167	10.1	6	60	17.2	14	13.9	15.0
Des Moines.....	29	10.5	4	76	13.5	3	11.0	11.6
Detroit.....	238	8.1	31	49	8.6	23	8.1	9.2
Duluth.....	14	7.2	1	27	12.3	1	11.1	11.6
El Paso.....	27	13.4	3	—	28.4	16	14.9	17.3
Erie.....	35	15.5	2	41	9.0	2	10.5	10.9
Fall River ⁷	20	9.0	0	0	12.7	5	11.1	11.5

See footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended January 2, 1932, infant mortality, annual death rate, and comparison with corresponding week of 1931—Continued

City	Week ended Jan. 2, 1932				Corresponding week, 1931		Death rate ² for 53 weeks ended—	
	Total deaths	Death rate ²	Deaths under 1 year	Infant mortality rate ³	Death rate ²	Deaths under 1 year	Jan. 2, 1932	Jan. 3, 1931
Flint.....	26	8.3	4	50	9.6	5	6.8	8.9
Fort Worth ⁴	32	10.0	5	-----	12.7	4	10.5	11.0
White.....	29	10.8	5	-----	13.3	3	10.1	10.5
Colored.....	3	5.8	0	-----	9.9	1	12.2	13.7
Grand Rapids.....	37	11.2	1	15	8.6	3	9.0	10.1
Houston ⁴	86	14.5	5	-----	13.4	8	11.0	12.2
White.....	56	12.9	3	-----	12.7	5	10.2	10.8
Colored.....	30	18.8	2	-----	15.3	3	13.4	15.8
Indianapolis ⁴	111	15.7	11	84	15.7	11	13.6	14.4
White.....	93	14.9	9	79	15.9	10	13.1	13.5
Colored.....	18	20.8	2	123	14.1	1	17.2	21.0
Jersey City.....	68	11.1	6	53	11.7	7	11.2	11.3
Kansas City, Kans. ⁴	14	5.9	2	44	12.8	1	12.4	11.8
White.....	10	5.2	2	53	12.6	1	11.7	11.2
Colored.....	4	8.9	0	0	13.7	0	15.2	14.6
Kansas City, Mo.....	99	12.6	5	40	15.5	11	12.6	13.2
Knoxville ⁴	14	6.7	2	43	11.8	4	12.4	13.4
White.....	13	7.4	2	49	12.9	4	11.6	12.5
Colored.....	1	2.9	0	0	6.0	0	16.4	18.2
Long Beach.....	34	11.6	1	25	15.2	2	9.9	10.3
Los Angeles.....	323	12.8	12	35	14.4	23	10.8	11.2
Louisville.....	112	18.9	12	109	13.7	13	13.7	13.5
White.....	85	17.0	7	73	13.2	12	12.3	12.0
Colored.....	27	29.5	5	359	16.5	1	21.2	21.6
Lowell ⁷	27	14.0	1	26	14.6	4	13.0	13.2
Lynn.....	28	14.2	1	29	11.7	0	9.5	10.5
Memphis ⁴	88	17.7	15	160	22.4	15	16.3	16.9
White.....	49	16.0	10	168	16.3	9	13.3	13.3
Colored.....	39	20.6	5	145	32.3	6	21.2	22.8
Miami ⁴	29	13.4	3	77	17.4	3	11.6	11.2
White.....	18	10.8	1	36	18.2	1	10.7	9.9
Colored.....	11	22.7	2	181	14.5	2	14.6	15.3
Milwaukee.....	82	7.2	8	36	7.9	11	9.0	9.6
Minneapolis.....	92	10.1	6	39	13.2	15	10.8	10.8
Nashville ⁴	44	14.8	4	60	17.2	5	16.7	16.4
White.....	31	14.3	4	79	12.6	4	14.4	13.8
Colored.....	13	15.8	0	0	29.2	1	22.6	23.2
New Bedford ⁷	26	12.0	1	26	14.4	4	12.0	11.1
New Haven.....	37	11.9	4	61	12.2	0	12.5	12.5
New Orleans ⁴	146	16.3	12	67	23.2	26	16.5	17.5
White.....	73	11.4	5	42	19.0	15	13.5	14.5
Colored.....	73	23.3	7	116	33.6	11	24.0	25.0
New York.....	1,432	10.5	110	47	12.8	154	10.9	10.8
Bronx Borough.....	204	8.0	10	28	9.2	16	8.1	7.9
Brooklyn Borough.....	452	9.0	42	45	11.8	72	10.1	9.8
Manhattan Borough.....	577	16.6	46	61	19.3	49	16.4	16.0
Queens Borough.....	148	6.7	12	48	8.2	14	7.1	7.1
Richmond Borough.....	51	16.3	0	0	13.7	3	13.5	13.7
Newark, N. J.....	104	12.2	6	32	14.0	10	11.4	12.0
Oakland.....	77	13.7	3	38	15.1	4	10.9	11.1
Oklahoma City.....	47	12.5	6	84	11.4	3	10.6	10.9
Omaha.....	58	14.0	2	23	19.7	9	13.7	13.6
Paterson.....	44	16.5	4	68	10.5	0	13.1	12.0
Peoria.....	29	13.9	1	26	16.8	2	12.3	12.3
Philadelphia.....	463	12.3	28	41	13.2	46	12.8	12.6
Pittsburgh.....	142	11.0	12	42	16.9	29	14.1	13.9
Portland, Oreg.....	83	14.1	4	49	13.8	5	11.7	12.1
Providence.....	56	11.5	4	37	13.4	5	12.6	12.9
Richmond ⁴	68	19.2	2	29	14.8	9	15.4	14.9
White.....	42	16.7	1	22	12.0	6	13.0	12.2
Colored.....	26	25.6	1	43	21.6	3	21.3	21.3
Rochester.....	63	9.9	3	28	13.3	5	11.7	11.5
St. Louis.....	197	12.4	11	40	16.3	8	14.6	14.0
St. Paul.....	48	9.1	4	41	11.3	3	10.3	10.1
Salt Lake City ⁴	38	13.9	2	30	19.3	2	11.9	12.8
San Antonio.....	61	13.2	3	-----	15.6	11	14.1	15.8
San Diego.....	43	14.3	0	0	17.8	4	13.8	14.6
San Francisco.....	219	17.6	10	67	17.2	8	13.1	13.1
Schenectady.....	20	10.8	2	60	7.1	2	10.9	10.9
Seattle.....	73	10.2	2	20	13.2	4	11.4	11.0
Somerville.....	23	11.4	2	62	9.5	1	8.9	9.7

See footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended January 2, 1932, infant mortality, annual death rate, and comparison with corresponding week of 1931—Continued

City	Week ended Jan. 2, 1932				Corresponding week, 1931		Death rate ² for 53 weeks ended—	
	Total deaths	Death rate ¹	Deaths under 1 year	Infant mortality rate ¹	Death rate ¹	Deaths under 1 year	Jan. 2, 1932	Jan. 3, 1931
South Bend.....	17	8.2	2	52	9.4	1	8.0	9.0
Spokane.....	23	10.3	1	26	15.3	3	12.3	12.4
Springfield, Mass.....	43	14.7	6	101	15.6	2	11.4	12.1
Syracuse.....	41	10.0	2	25	13.4	7	11.5	11.6
Tacoma.....	35	16.9	4	111	20.5	4	12.5	12.6
Toledo.....	70	12.3	1	9	11.6	4	11.7	12.6
Trenton.....	43	18.1	2	37	24.1	4	16.2	16.5
Utica.....	27	13.8	2	56	14.8	1	14.3	14.6
Washington, D. C. ⁶	173	18.4	10	56	17.5	13	15.9	15.2
White.....	115	16.8	8	66	15.4	6	13.5	13.0
Colored.....	58	22.4	2	34	23.1	7	22.1	20.9
Waterbury.....	15	7.8	1	25	12.0	0	9.4	9.4
Wilmington, Del. ⁷	35	17.1	1	23	14.7	3	13.8	14.5
Worcester.....	48	12.7	4	57	13.6	2	12.0	12.8
Yonkers.....	18	6.8	0	0	8.9	3	8.3	8.2
Youngstown.....	42	12.7	3	41	10.7	2	9.7	10.4

¹ Deaths of nonresidents are included. Stillbirths are excluded.

² These rates represent annual rates per 1,000 population, as estimated for 1931 and 1930 by the arithmetical method.

³ Deaths under 1 year of age per 1,000 live births. Cities left blank are not in the registration area for births.

⁴ Data for 77 cities.

⁵ Deaths for week ended Friday.

⁶ For the cities for which deaths are shown by color, the percentages of colored population in 1930 were as follows: Atlanta, 33; Baltimore, 18; Birmingham, 38; Dallas, 17; Fort Worth, 16; Houston, 27; Indianapolis, 12; Kansas City, Kans., 19; Knoxville, 16; Louisville, 15; Memphis, 38; Miami, 23; Nashville, 28; New Orleans, 29; Richmond, 29; and Washington, D. C., 27.

⁷ Population Apr. 1, 1930; decreased 1920 to 1930, no estimate made.

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended January 9, 1932, and January 10, 1931

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended January 9, 1932, and January 10, 1931

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931
New England States:								
Maine.....	6	1	8	1	548	7	3	0
New Hampshire.....	5	3			27	21	0	0
Vermont.....		1			193	14	0	0
Massachusetts.....	69	83	4	18	429	630	0	2
Rhode Island.....	12	2	4		806	1	1	1
Connecticut.....	9	17	9	10	104	271	1	1
Middle Atlantic States:								
New York.....	104	125	126	1438	773	376	15	17
New Jersey.....	51	79	25	73	78	326	1	3
Pennsylvania.....	145	151			1,425	962	3	9
East North Central States:								
Ohio.....	94	44	14	12	121	158	1	2
Indiana.....	68	45	9	29	119	275	11	8
Illinois.....	179	159	33	15	53	553	15	12
Michigan.....	22	55	6	1	165	150	2	5
Wisconsin.....	23	15	27	61	48	213	1	5
West North Central States:								
Minnesota.....	30	10	1	1	60	15	3	4
Iowa.....	33	8			2	4	2	3
Missouri.....	57	56	3	23	10	1,160	4	8
North Dakota.....	30	4			32		2	2
South Dakota.....	5	8			21	5	1	21
Nebraska.....	18	6	11	3	19	18	0	1
Kansas.....	41	14	5		50	12	0	1
South Atlantic States:								
Delaware.....	4	4	3			5	0	0
Maryland ¹	45	37	26	47	4	138	2	2
District of Columbia.....	21	15	3	2	2	11	2	1
Virginia.....								
West Virginia.....	48	19	36	41	301	25	1	3
North Carolina ²	67	47	22	35	125	90	0	1
South Carolina.....	12	21	429	890	43	17	0	4
Georgia ³	12	9	88	201	1	76	2	4
Florida.....	15	17	1	3		35	0	0

¹ New York City only.

² Week ended Friday.

³ Typhus fever, week ended Jan. 9, 1932, 9 cases: 1 case in North Carolina, 2 cases in Georgia, 2 cases in Alabama, and 4 cases in Texas.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended January 9, 1932, and January 10, 1931—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931
East South Central States:								
Kentucky.....	54				32	74	1	3
Tennessee.....	43	0	41	162	10	180	3	2
Alabama ¹	20	56	58	103	9	357	0	0
Mississippi.....	22	11					0	1
West South Central States:								
Arkansas.....	22	11	26	56	3	6	0	0
Louisiana.....	32	46	25	138	14	5	0	5
Oklahoma ¹	47	32	44	85	6	49	0	1
Texas ²	164	50	62	84	13	60	0	2
Mountain States:								
Montana.....		4	14		221	3	1	1
Idaho.....			2			12	0	0
Wyoming.....	1		3		1		0	1
Colorado.....	15	8			8	41	2	3
New Mexico.....	21	6	5		4	100	1	1
Arizona.....	4		1	13	4	50	0	3
Utah ¹		1		13			0	2
Pacific States:								
Washington.....	4	9			372	39	1	3
Oregon.....	3	6	45	39	35	67	0	1
California.....	82	62	123	92	207	272	6	8

Division and State	Pollomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931
New England States:								
Maine.....	3	0	40	18	0	0	1	4
New Hampshire.....	0	0	14	4	0	0	0	0
Vermont.....	0	0	4	9	3	0	0	1
Massachusetts.....	1	2	440	274	0	0	11	6
Rhode Island.....	0	0	35	31	0	0	0	0
Connecticut.....	2	0	79	57	15	0	0	0
Middle Atlantic States:								
New York.....	9	3	653	611	7	11	20	11
New Jersey.....	1	1	228	219	0	0	7	2
Pennsylvania.....	1	2	580	552	0	1	22	22
East North Central States:								
Ohio.....	0	4	338	527	20	92	10	9
Indiana.....	0	1	153	287	4	90	7	3
Illinois.....	5	3	429	446	34	50	10	5
Michigan.....	5	0	194	258	20	18	9	7
Wisconsin.....	0	1	95	122	8	0	0	1
West North Central States:								
Minnesota.....	3	0	99	54	14	12	1	0
Iowa.....	1	4	43	156	78	37	1	1
Missouri.....	0	2	75	165	26	28	4	6
North Dakota.....	1	1	14	35	79	15	1	0
South Dakota.....	0	0	6	16	8	34	2	1
Nebraska.....	0	2	24	49	12	59	1	1
Kansas.....	0	2	40	53	2	106	6	4
South Atlantic States:								
Delaware.....	0	0	13	22	0	0	0	0
Maryland ¹	0	0	100	83	0	0	8	2
District of Columbia.....	1	0	23	43	0	0	1	1
Virginia.....						1		
West Virginia.....	0	0	48	37	0	8	13	10
North Carolina ¹	1	0	84	75	0	7	6	6
South Carolina.....	0	0	16	16	2	1	12	4
Georgia ¹	0	0	24	43	0	0	13	7
Florida.....	0	0	4	4	0	6	5	1

¹ Week ended Friday.

² Typhus fever, week ended Jan. 9, 1932, 9 cases: 1 case in North Carolina, 2 cases in Georgia, 2 cases in Alabama, and 4 cases in Texas.

³ Figures for 1932 are exclusive of Oklahoma City and Tulsa.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended January 9, 1932, and January 10, 1931—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931	Week ended Jan. 9, 1932	Week ended Jan. 10, 1931
East South Central States:								
Kentucky.....	3	1	97	89	0	11	12	2
Tennessee.....	1	1	71	17	10	4	17	3
Alabama.....	2	0	46	48	3	2	9	0
Mississippi.....	0	2	18	19	11	9	5	3
West South Central States:								
Arkansas.....	0	0	19	70	8	11	9	5
Louisiana.....	0	1	14	8	7	6	17	14
Oklahoma.....	2	0	42	46	4	100	9	8
Texas.....	1	1	111	51	19	48	14	9
Mountain States:								
Montana.....	0	0	51	43	5	8	0	2
Idaho.....	0	0	4	4	2	1	0	0
Wyoming.....	0	1	6	16	0	1	1	0
Colorado.....	1	0	58	34	4	24	0	1
New Mexico.....	1	0	18	7	0	2	1	1
Arizona.....	0	0	7	2	2	0	1	0
Utah.....	0	0	10	4	3	2	0	0
Pacific States:								
Washington.....	0	0	56	32	31	27	3	3
Oregon.....	0	0	19	22	17	10	3	0
California.....	3	5	141	97	16	59	4	4

² Week ended Friday.

³ Typhus fever, week ended Jan. 9, 1932, 9 cases: 1 case in North Carolina, 2 cases in Georgia, 2 cases in Alabama, and 4 cases in Texas.

⁴ Figures for 1932 are exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week.

State	Meningococcus meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
<i>November, 1931</i>										
Arkansas.....		234	37	67	35	22	3	137	11	50
Michigan.....	14	210	3	1	326		45	787	64	48
Mississippi.....	5	301	1,243	2,322	27	342	2	154	44	40
<i>December, 1931</i>										
Arizona.....	2	52	33	2	10		2	33	2	2
Connecticut.....	5	32	28	1	250		8	259	96	8
Georgia.....	6	111	184	94	9	22	2	102		35
Iowa.....	6	124			16		12	186	241	8
Maine.....	1	62	13		1,467		2	144	0	9
Nebraska.....	1	88	10		61		1	111	28	7
Tennessee.....	14	206	106	37	49	12	3	211	21	67

<i>November, 1931</i>			
	Cases		Cases
Chicken pox:		Impetigo contagiosa:	
Arkansas.....	34	Iowa.....	2
Michigan.....	763	Tennessee.....	3
Mississippi.....	238	Lethargic encephalitis:	
Dengue:		Connecticut.....	4
Mississippi.....	6	Mumps:	
Dysentery:		Arizona.....	11
Mississippi (amebic).....	42	Connecticut.....	175
Lethargic encephalitis:		Georgia.....	20
Michigan.....	3	Iowa.....	33
Mumps:		Maine.....	14
Arkansas.....	7	Nebraska.....	47
Michigan.....	310	Tennessee.....	47
Mississippi.....	45	Ophthalmia neonatorum:	
Ophthalmia neonatorum:		Tennessee.....	8
Arkansas.....	1	Paratyphoid fever:	
Mississippi.....	4	Connecticut.....	5
Puerperal septicemia:		Maine.....	3
Mississippi.....	15	Rabies in animals:	
Rabies in animals:		Connecticut.....	9
Mississippi.....	1	Septic sore throat:	
Septic sore throat:		Connecticut.....	16
Michigan.....	37	Georgia.....	17
Trachoma:		Maine.....	2
Arkansas.....	3	Nebraska.....	20
Mississippi.....	10	Tennessee.....	13
Tularaemia:		Tetanus:	
Michigan.....	1	Tennessee.....	1
Undulant fever:		Trachoma:	
Mississippi.....	2	Arizona.....	14
Whooping cough:		Tennessee.....	1
Arkansas.....	55	Trichinosis:	
Michigan.....	694	Connecticut.....	2
Mississippi.....	302	Tularaemia:	
<i>December, 1931</i>		Iowa.....	6
Chicken pox:		Tennessee.....	7
Arizona.....	153	Typhus fever:	
Connecticut.....	479	Georgia.....	8
Georgia.....	80	Undulant fever:	
Iowa.....	359	Arizona.....	1
Maine.....	152	Connecticut.....	2
Nebraska.....	163	Iowa.....	5
Tennessee.....	70	Nebraska.....	1
Dengue:		Tennessee.....	1
Georgia.....	1	Vincent's angina:	
Dysentery:		Iowa.....	6
Georgia.....	3	Maine.....	5
Tennessee.....	2	Whooping cough:	
German measles:		Arizona.....	16
Arizona.....	1	Connecticut.....	232
Connecticut.....	27	Georgia.....	24
Iowa.....	5	Iowa.....	118
Maine.....	25	Maine.....	99
Hookworm disease:		Nebraska.....	13
Tennessee.....	1	Tennessee.....	159

ADMISSIONS TO HOSPITALS FOR THE INSANE, DECEMBER, 1929

Reports for the month of December, 1929, showing new admissions to hospitals for the care and treatment of the insane, were received by the Public Health Service from 100 hospitals, located in 40 States, the District of Columbia, and the Territory of Hawaii. The 100 hospitals had 184,607 patients on December 31, 1929, 98,458 males and 86,149 females, the ratio being 114 males per 100 females.

The following table shows the number of new admissions for the month of December, 1929, by psychoses:

Psychoses	Number of first admissions		
	Male	Female	Total
1. Traumatic psychoses.....	14	3	17
2. Senile psychoses.....	175	134	309
3. Psychoses with cerebral arteriosclerosis.....	154	104	258
4. General paralysis.....	192	38	230
5. Psychoses with cerebral syphilis.....	25	11	36
6. Psychoses with Huntington's chorea.....	1	1	2
7. Psychoses with brain tumor.....	3	0	3
8. Psychoses with other brain or nervous disease.....	20	18	48
9. Alcoholic psychoses.....	101	10	111
10. Psychoses due to drugs and other exogenous toxins.....	19	14	33
11. Psychoses with pellagra.....	8	22	30
12. Psychoses with other somatic diseases.....	43	48	91
13. Manic-depressive psychoses.....	144	249	393
14. Involution melancholia.....	34	54	88
15. Dementia præcox (schizophrenia).....	334	249	583
16. Paranoia and paranoid conditions.....	26	19	45
17. Epileptic psychoses.....	46	44	90
18. Psychoneuroses and neuroses.....	23	34	57
19. Psychoses with psychopathic personality.....	15	9	24
20. Psychoses with mental deficiency.....	59	34	93
21. Undiagnosed psychoses.....	97	90	187
22. Without psychosis.....	187	38	225
Total.....	1,730	1,223	2,953

During the month of December, 1929, there were 2,953 new admissions to the hospitals, 58.6 per cent of these being males and 41.4 per cent females, the ratio being 141 males per 100 females. Four hundred and twelve of the new admissions were reported as undiagnosed or "without psychosis." There were 2,541 new admissions for which a provisional diagnosis was made. Of these 2,541 patients, cases of dementia præcox constituted 22.9 per cent; manic-depressive psychoses, 15.5 per cent; senile psychoses, 12.2 per cent; psychoses with cerebral arteriosclerosis, 10.2 per cent; and general paralysis, 9.1 per cent. These five classes accounted for 69.8 per cent of the new admissions for which a diagnosis was given.

The following table shows the number of patients in the hospitals and on parole on December 31, 1929:

	Total patients on books		
	Male	Female	Total
Total patients on books last day of month:			
In hospitals.....	87,735	77,556	165,291
On parole or otherwise absent, but still on books.....	10,723	8,893	19,616
Total.....	98,458	86,449	184,607

Of the 184,607 patients, 10,723 males and 8,593 females were on parole or otherwise absent but still on the books at the end of the month—10.9 per cent of the males, 10.0 per cent of the females, and 10.5 per cent of the total number of patients.

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 93 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 33,190,000. The estimated population of the 87 cities reporting deaths is more than 31,760,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended January 2, 1932, and January 3, 1931

	1932	1931	Estimated expectancy
<i>Cases reported</i>			
Diphtheria:			
46 States.....	1,595	1,480	
93 cities.....	461	499	914
Measles:			
45 States.....	4,642	4,933	
93 cities.....	1,223	1,765	
Meningococcus meningitis:			
46 States.....	79	121	
93 cities.....	42	54	
Pollomyelitis:			
46 States.....	51	65	
Scarlet fever:			
46 States.....	4,203	4,469	
93 cities.....	1,443	1,434	1,247
Smallpox:			
46 States.....	339	662	
93 cities.....	21	43	26
Typhoid fever:			
46 States.....	255	196	
93 cities.....	31	32	27
<i>Deaths reported</i>			
Influenza and pneumonia:			
87 cities.....	817	1,075	
Smallpox:			
87 cities.....	0	0	

City reports for week ended January 2, 1932

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence the number of cases of the disease under consideration that may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding weeks of the preceding years. When the reports include several epidemics, or when for other reasons the median is unsatisfactory, the epidemic periods are excluded, and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If the reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1922 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviation from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
		Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND								
Maine:								
Portland	6	1	3		0	23	0	2
New Hampshire:								
Concord	0	0	0		0	0	0	0
Nashua	2	0	0		0	0	0	0
Vermont:								
Barre		0						
Massachusetts:								
Boston	0	43	19	5	1	7	9	8
Fall River	2	4	0		0	3	0	1
Springfield	10	5	0		0	3	10	2
Worcester	5	6	10		0	1	32	7
Rhode Island:								
Pawtucket	0	1	0		0	0	0	0
Providence	1	7	3		0	463	8	5
Connecticut:								
Bridgeport	3	6	0		0	1	0	6
Hartford	5	7	0		0	0	14	4
New Haven	18	0	0		0	1	15	3
MIDDLE ATLANTIC								
New York:								
Buffalo	34	13	5		2	3	0	19
New York	116	170	100	16	4	36	48	161
Rochester	7	6	2		0	36	7	4
Syracuse	18	2	0		0	4	0	1
New Jersey:								
Camden	3	5	2		2	0	0	3
Newark	25	17	2	6	0	1	1	6
Trenton	2	2	0		0	0	6	1
Pennsylvania:								
Philadelphia	77	61	4	9	4	3	19	55
Pittsburgh	23	21	11	1	0	124	29	29
Reading	20	1	0		0	1	2	2
EAST NORTH CENTRAL								
Ohio:								
Cincinnati	8	10	4		3	0	0	9
Cleveland	73	36	9	17	2	84	58	18
Columbus	9	5	4	1	0	0	2	8
Toledo	33	9	4		0	2	2	3
Indiana:								
Fort Wayne	3	3	13		0	0	0	2
Indianapolis	36	9	0		0	0	15	16
South Bend	1	1	0		0	1	0	2
Terre Haute	5	0	1		0	0	0	3
Illinois:								
Chicago	76	121	44	13	5	33	6	55
Peoria	14		1		0	1	1	2
Springfield		1						
Michigan:								
Detroit	31	60	28	5	2	2	6	18
Flint	9	2	0		0	1	26	2
Grand Rapids	7	1	1	1	2	23	0	0

City reports for week ended January 2, 1932—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumo- nia, deaths reported
		Cases, estimated expect- ancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued								
Wisconsin:								
Kenosha.....	10	0	0	-----	0	1	0	0
Madison.....	4	2	0	-----	-----	1	0	-----
Milwaukee.....	62	17	2	3	3	7	17	4
Racine.....	6	2	0	-----	0	1	24	0
Superior.....	0	0	0	-----	0	0	4	0
WEST NORTH CENTRAL								
Minnesota:								
Duluth.....	4	0	0	-----	0	0	0	2
Minneapolis.....	18	16	5	-----	0	0	4	10
St. Paul.....	10	8	2	1	1	2	0	4
Iowa:								
Davenport.....	0	1	0	-----	-----	0	0	-----
Des Moines.....	0	1	2	-----	-----	1	0	-----
Sioux City.....	9	1	8	-----	-----	0	0	-----
Waterloo.....	2	0	0	-----	-----	0	0	-----
Missouri:								
Kansas City.....	12	6	7	-----	0	1	0	5
St. Joseph.....	2	0	4	-----	0	0	0	2
St. Louis.....	10	40	23	3	1	4	2	4
North Dakota:								
Fargo.....	8	0	0	-----	0	11	1	1
South Dakota:								
Aberdeen.....	8	0	0	-----	-----	14	0	-----
Sioux Falls.....	0	0	0	-----	-----	0	0	-----
Nebraska:								
Omaha.....	11	5	5	-----	0	1	1	6
Kansas:								
Topeka.....	6	1	1	-----	1	0	1	0
Wichita.....	10	2	13	-----	0	1	0	1
SOUTH ATLANTIC								
Delaware:								
Wilmington.....	1	1	0	-----	0	0	0	2
Maryland:								
Baltimore.....	18	25	9	19	1	3	23	38
Cumberland.....	2	0	0	1	0	0	0	1
Frederick.....	0	0	2	-----	0	0	0	0
District of Columbia:								
Washington.....	7	16	3	3	3	2	0	14
Virginia:								
Lynchburg.....	1	2	4	-----	0	0	0	4
Norfolk.....	1	2	4	1	0	0	0	1
Richmond.....	4	6	6	-----	3	0	0	4
Roanoke.....	3	2	3	-----	0	2	2	2
West Virginia:								
Charleston.....	5	1	1	-----	0	3	0	0
Huntington.....	0	-----	4	-----	0	1	0	0
Wheeling.....	2	1	0	-----	0	2	0	1
North Carolina:								
Raleigh.....	6	1	0	-----	0	27	0	3
Wilmington.....	2	1	1	-----	0	0	0	0
Winston-Salem.....	6	1	2	1	0	0	0	1
South Carolina:								
Charleston.....	2	0	1	24	0	1	0	1
Columbia.....	0	0	0	-----	0	0	0	8
Greenville.....	0	-----	0	-----	0	0	0	0
Georgia:								
Atlanta.....	6	6	1	16	1	0	1	8
Brunswick.....	0	0	1	-----	0	0	0	0
Savannah.....	1	0	0	13	1	0	0	1
Florida:								
Miami.....	0	0	1	-----	0	0	0	0
Tampa.....	0	1	2	1	0	0	0	0

City reports for week ended January 2, 1932—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumo- nia, deaths reported
		Cases, estimated expect- ancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL								
Kentucky:								
Covington.....		0						
Lexington.....	2		2		0	0	0	2
Tennessee:								
Memphis.....	0	5	6		0	0	0	9
Nashville.....	1	2	1		2	1	1	3
Alabama:								
Birmingham.....	2	5	9	4	2	0	3	4
Mobile.....	0	1	0		0	0	0	0
Montgomery.....	0	1	1			4	1	
WEST SOUTH CENTRAL								
Arkansas:								
Fort Smith.....	0	0	3			0	0	
Little Rock.....	0	1	0		1	1	0	11
Louisiana:								
New Orleans.....	0	14	0	2	6	0	0	6
Shreveport.....	3	1	4		0	13	1	4
Oklahoma:								
Muskogee.....	0		3			0	2	
Texas:								
Dallas.....	2	13	14	1	1	0	0	7
Fort Worth.....	3	6	10		0	0	0	5
Galveston.....	0	0	1		0	0	0	1
Houston.....	0	8	14		0	0	0	11
San Antonio.....	0	4	2		5	0	0	4
MOUNTAIN								
Montana:								
Billings.....	1	0	0		0	5	0	0
Great Falls.....	1	0	0		0	0	0	0
Helena.....	0	0	0		0	54	0	0
Missoula.....	0	0	0		0	0	0	1
Idaho:								
Boise.....		0						
Colorado:								
Denver.....	15	8	4		14	0	10	14
Pueblo.....	5	1	0		1	0	0	2
New Mexico:								
Albuquerque.....	7	1	1		1	2	0	0
Arizona:								
Phoenix.....	0	1	1		0	0	0	3
Utah:								
Salt Lake City.....	29	3	0		0	0	1	1
Nevada:								
Reno.....	0	0	0		0	0	0	1
PACIFIC								
Washington:								
Seattle.....	25	4	0			160	7	
Spokane.....		1						
Tacoma.....	0	2	0		0	1	1	7
Oregon:								
Portland.....	6	7	1	8	1	1	3	3
Salem.....	9	0	0		0	0	2	0
California:								
Los Angeles.....	66	35	29	82	3	1	14	31
Sacramento.....	2	2	2		0	53	0	13
San Francisco.....	30	16	0	17	3	2	0	22

City reports for week ended January 2, 1932—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re-ported	Typhoid fever			Whoop- ing cough, cases re-ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	4	0	0	0	0	0	0	0	5	18
New Hampshire:											
Concord.....	0	2	0	0	0	0	0	0	0	0	11
Nashua.....	0	1	0	0	0	0	0	0	0	0	—
Vermont:											
Barre.....	1	—	0	—	—	—	0	—	—	—	—
Massachusetts:											
Boston.....	74	129	0	0	0	11	1	2	0	16	199
Fall River.....	3	8	0	0	0	0	0	1	0	3	21
Springfield.....	9	4	0	0	0	1	0	0	0	1	48
Worcester.....	11	37	0	0	0	2	0	1	0	31	—
Rhode Island:											
Pawtucket.....	2	0	0	0	0	0	0	0	0	0	15
Providence.....	11	25	0	0	0	3	0	0	0	5	56
Connecticut:											
Bridgeport.....	10	7	0	5	0	1	0	0	0	2	35
Hartford.....	7	5	0	0	0	0	0	0	0	7	49
New Haven.....	4	3	0	0	0	0	0	1	0	8	37
MIDDLE ATLANTIC											
New York:											
Buffalo.....	25	49	0	0	0	4	0	0	0	19	142
New York.....	186	229	0	0	0	70	8	4	0	87	1,432
Rochester.....	11	47	0	0	0	0	0	0	0	8	60
Syracuse.....	11	17	0	0	0	2	0	0	0	55	41
New Jersey:											
Camden.....	4	12	0	0	0	0	0	0	0	4	37
Newark.....	19	21	0	0	0	9	0	0	0	47	106
Trenton.....	4	2	0	0	0	2	0	0	0	2	43
Pennsylvania:											
Philadelphia.....	84	117	0	0	0	22	2	2	0	178	463
Pittsburgh.....	36	42	0	0	0	7	0	0	0	23	142
Reading.....	3	1	0	0	0	1	0	0	0	8	25
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	18	44	0	0	0	15	1	0	0	4	132
Cleveland.....	40	35	0	0	0	11	0	0	0	104	218
Columbus.....	11	12	1	0	0	1	0	2	1	16	81
Toledo.....	13	10	1	0	0	2	0	1	0	39	70
Indiana:											
Fort Wayne.....	4	1	0	0	0	1	0	0	0	0	25
Indianapolis.....	9	3	5	0	0	2	0	1	0	6	—
South Bend.....	3	2	0	0	0	0	0	0	0	2	16
Terre Haute.....	3	3	0	0	0	1	0	0	0	0	20
Illinois:											
Chicago.....	122	137	1	11	0	30	3	2	0	106	733
Peoria.....	—	4	—	0	0	0	—	0	0	10	29
Springfield.....	2	—	0	—	—	—	0	—	—	—	—
Michigan:											
Detroit.....	96	102	2	0	0	17	1	0	0	61	298
Flint.....	12	12	0	0	0	1	0	0	0	6	26
Grand Rapids.....	11	11	0	0	0	2	0	0	0	6	37
Wisconsin:											
Kenosha.....	3	2	1	0	0	0	0	0	0	3	9
Madison.....	3	0	0	—	—	—	0	—	—	0	—
Milwaukee.....	29	18	0	0	0	3	0	0	0	69	82
Racine.....	5	0	0	0	0	0	0	0	0	0	14
Superior.....	3	0	0	0	0	0	0	0	0	0	8
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	10	0	0	0	0	3	0	0	0	0	14
Minneapolis.....	48	23	1	0	0	1	0	0	0	0	92
St. Paul.....	25	2	0	0	0	1	0	0	1	6	49

City reports for week ended January 2, 1932—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths reported	Typhoid fever			Whoop- ing cough, cases re-ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—continued											
Iowa:											
Davenport	1	3	0	1			0	0		0	
Des Moines	8	3	1	0			0	0		0	29
Sioux City	2	1	0	2			0	0		3	
Waterloo	3	0	0	0			0	1		4	
Missouri:											
Kansas City	15	8	0	0	0	5	0	0	0	9	90
St. Joseph	2	2	0	0	0	0	0	0	0	0	25
St. Louis	37	16	1	0	0	13	1	0	0	37	197
North Dakota:											
Fargo	2	1	0	0	0	0	0	0	0	1	10
South Dakota:											
Aberdeen	0	1	0	0			0	0		2	
Sioux Falls	1	0	0	1			0	0		0	6
Nebraska:											
Omaha	6	4	2	0	0	4	0	0	0	3	58
Kansas:											
Topeka	2	1	0	0	0	0	0	0	0	12	9
Wichita	5	2	0	0	0	0	0	0	0	3	25
SOUTH ATLANTIC											
Delaware:											
Wilmington	2	6	0	0	0	1	0	0	0	0	35
Maryland:											
Baltimore	30	23	0	0	0	11	2	1	0	109	247
Cumberland	0	5	0	0	0	2	0	0	0	0	5
Frederick	0	5	0	0	0	0	0	0	0	3	3
District of Colum- bia:											
Washington	24	23	0	0	0	9	1	1	0	14	173
Virginia:											
Lynchburg	1	2	0	0	0	0	0	0	0	0	9
Norfolk	2	11	0	0	0	1	0	0	0	0	
Richmond	7	27	0	0	0	4	0	0	0	0	51
Roanoke	3	3	0	0	0	1	0	0	0	0	24
West Virginia:											
Charleston	2	3	0	0	0	2	0	1	1	0	26
Huntington		1	0	0	0	0	0	0	0	0	
Wheeling	2	2	0	0	0	1	0	0	1	1	19
North Carolina:											
Raleigh	1	1	0	0	0	0	0	0	0	0	13
Wilmington	1	0	0	0	0	0	0	0	0	10	11
Winston-Salem	2	1	0	0	0	2	0	0	0	7	12
South Carolina:											
Charleston	1	0	0	0	0	3	0	0	0	0	22
Columbia	0	2	0	0	0	0	0	0	0	0	22
Greenville		0	0	0	0	0	0	0	0	2	
Georgia:											
Atlanta	5	8	1	0	0	3	0	0	0	2	94
Brunswick	0	0	0	0	0	0	0	0	0	0	2
Savannah	1	0	0	0	0	1	0	0	0	1	42
Florida:											
Miami	2	0	0	0	0	2	0	0	0	0	29
Tampa	2	1	0	0	0	1	0	0	0	1	21
EAST SOUTH CENTRAL											
Kentucky:											
Covington	2		0				0				
Lexington		1		0	0	0		0	0	3	27
Tennessee:											
Memphis	7	4	0	0	0	8	1	3	0	3	88
Nashville	5	1	0	0	0	4	0	1	0	5	44
Alabama:											
Birmingham	3	4	1	0	0	4	1	2	0	0	76
Mobile	0	8	0	0	0	1	0	0	0	0	23
Montgomery	0	2	0	0			0	0		0	

¹ Nonresident.² 9 nonresidents included.

City reports for week ended January 2, 1932—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	0	2	0	0			0	0		0	
Little Rock.....	2	3	0	0	0	3	0	0	0	3	15
Louisiana:											
New Orleans.....	7	11	0	0	0	16	2	1	1	3	146
Shreveport.....	2	3	0	0	0	0	0	0	2	3	29
Oklahoma:											
Muskogee.....		2		0				0		2	
Texas:											
Dallas.....	7	11	1	0	0	1	0	0	0	0	40
Forth Worth.....	2	7	0	2	0	1	0	0	0	0	32
Galveston.....	0	0	0	0	0	0	0	0	0	0	9
Houston.....	3	2	1	0	0	3	0	0	0	0	86
San Antonio.....	2	0	0	0	0	8	0	0	0	0	61
MOUNTAIN											
Montana:											
Billings.....	1	0	0	0	0	0	0	0	0	0	6
Great Falls.....	3	1	0	0	0	1	0	0	0	0	10
Helena.....	0	0	0	0	0	0	0	0	0	0	2
Missoula.....	0	5	0	0	0	0	0	0	0	0	4
Idaho:											
Boise.....	1		0				0				
Colorado:											
Denver.....	13	16	0	0	0	4	0	0	0	2	107
Pueblo.....	1	0	1	0	0	0	0	0	0	0	11
New Mexico:											
Albuquerque.....	0	1	0	0	0	3	0	0	0	1	14
Arizona:											
Phoenix.....	0	0		0	0	4		0	0	0	
Utah:											
Salt Lake City.....	1	2	0	0	0	0	0	0	0	3	28
Nevada:											
Reno.....	0	0	0	0	0	1	0	0	0	0	4
PACIFIC											
Washington:											
Seattle.....	8	11	1	0			1	1		4	
Spokane.....	7		4			0	0				
Tacoma.....	4	1	3	1	0	0	0	0	0	0	35
Oregon:											
Portland.....	6	3	0	2	0	4	0	0	0	1	83
Salem.....	0	0	0	0	0	0		0	0	1	2
California:											
Los Angeles.....	33	37	1	1	0	19	2	0	0	14	323
Sacramento.....	2	0	1	0	0	2	0	0	0	0	40
San Francisco.....	17	4	1	1	0	13	0	3	0	0	220

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)			
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths	
NEW ENGLAND										
Maine:										
Portland.....	1	0	0	0	0	0	0	1	0	
Massachusetts:										
Boston.....	1	0	0	0	0	0	0	1	0	
Connecticut:										
Hartford.....	0	1	0	0	0	0	0	0	0	

City reports for week ended January 2, 1932—Continued

Division, State, and city	Meningo- coccus meningitis		Lethargic en- cephalitis		Pellagra		Pollomyelitis (infan- tile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, esti- mated expect- ancy	Cases	Deaths
MIDDLE ATLANTIC									
New York:									
New York ¹	5	1	0	1	0	0	1	4	0
Pennsylvania:									
Pittsburgh.....	1	0	0	0	0	0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	1	0	0	0	0	0	0	0	0
Cleveland.....	1	0	1	0	0	1	0	0	0
Indiana:									
Indianapolis.....	17	5	0	0	0	0	0	0	0
South Bend.....	1	0	0	0	0	0	0	0	0
Illinois:									
Chicago.....	6	4	0	0	0	0	1	2	0
Michigan:									
Detroit.....	0	1	0	0	0	0	0	0	0
Flint.....	0	0	0	1	0	0	0	0	0
Wisconsin:									
Milwaukee.....	1	1	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Minneapolis.....	1	1	0	0	0	0	0	0	0
St. Paul.....	1	0	0	0	0	0	0	1	0
Iowa:									
Des Moines.....	1	0	0	0	0	0	0	0	0
Missouri:									
St. Louis.....	1	0	0	0	0	0	0	0	0
North Dakota:									
Fargo.....	0	1	0	0	0	0	0	0	0
Kansas:									
Topeka.....	0	0	0	0	1	0	0	0	0
SOUTH ATLANTIC ¹									
Maryland:									
Baltimore.....	0	0	1	0	0	0	0	0	0
District of Columbia:									
Washington.....	1	1	0	0	0	0	0	0	0
South Carolina:									
Charleston.....	0	0	0	0	0	1	0	0	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis.....	0	0	0	0	1	1	0	0	0
Nashville.....	2	1	0	0	0	0	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	1	1	0	0	1	1	0	0	0
Texas:									
Fort Worth.....	0	0	0	0	0	1	0	0	0
MOUNTAIN									
New Mexico:									
Albuquerque.....	0	1	0	0	0	0	0	0	0
PACIFIC									
California:									
Los Angeles.....	0	0	0	0	0	0	1	1	0
Sacramento.....	1	1	0	0	0	0	0	0	0
San Francisco.....	0	0	0	0	0	0	0	2	0

¹ Typhus fever, 3 cases and 1 death: 1 case and 1 death at New York City, N. Y.; and 2 cases at Savannah, Ga.

The following table gives the rates per 100,000 population for 98 cities for the 5-week period ended January 2, 1932, compared with those for a like period ended January 3, 1931. The population figures used in computing the rates are estimated mid-year populations for 1930 and 1931, respectively, derived from the 1930 census. The 98 cities reporting cases have an estimated aggregate population of more than 33,000,000. The 91 cities reporting deaths have more than 31,500,000 estimated population.

*Summary of weekly reports from cities, November 29, 1931, to January 2, 1932—
Annual rates per 100,000 population, compared with rates for the corresponding period of 1930-31¹*

DIPHTHERIA CASE RATES

	Week ended—									
	Dec. 5, 1931	Dec. 6, 1930	Dec. 12, 1931	Dec. 13, 1930	Dec. 19, 1931	Dec. 20, 1930	Dec. 26, 1931	Dec. 27, 1930	Jan. 2, 1932	Jan. 3, 1931
98 cities.....	101	90	93	87	103	94	72	71	72	80
New England.....	58	121	70	123	84	143	65	75	85	116
Middle Atlantic.....	64	58	59	47	71	62	57	47	50	68
East North Central.....	94	112	86	120	104	116	69	102	65	91
West North Central.....	222	101	168	97	187	89	134	54	120	89
South Atlantic.....	164	112	118	122	118	108	99	86	71	62
East South Central.....	193	143	163	138	157	84	111	84	107	72
West South Central.....	244	147	287	132	189	202	115	142	129	136
Mountain.....	52	18	26	26	96	18	26	62	36	62
Pacific.....	88	65	61	55	82	83	41	40	64	55

MEASLES CASE RATES

98 cities.....	113	142	118	162	128	104	125	181	192	281
New England.....	481	220	656	273	637	271	945	365	1,213	268
Middle Atlantic.....	111	85	89	85	79	87	66	70	93	101
East North Central.....	31	28	28	26	60	28	32	27	94	55
West North Central.....	27	953	46	1,077	25	1,416	50	1,277	38	1,894
South Atlantic.....	43	62	22	80	26	138	14	124	70	322
East South Central.....	35	155	17	299	52	275	17	323	31	921
West South Central.....	27	11	17	11	44	18	41	24	64	24
Mountain.....	757	53	806	150	740	167	339	229	533	317
Pacific.....	180	26	210	26	294	6	250	16	445	24

SCARLET FEVER CASE RATES

98 cities.....	170	202	222	224	214	234	187	222	227	231
New England.....	293	268	397	259	438	351	380	333	541	327
Middle Atlantic.....	155	178	199	186	202	208	205	190	240	229
East North Central.....	229	257	281	315	264	305	227	285	234	261
West North Central.....	161	198	143	209	138	279	126	246	115	238
South Atlantic.....	172	230	176	260	201	208	167	178	221	262
East South Central.....	128	299	290	377	167	197	157	341	119	290
West South Central.....	108	92	142	84	101	73	41	59	168	108
Mountain.....	218	141	261	211	261	300	113	379	217	220
Pacific.....	100	97	153	71	94	83	61	85	109	73

¹ The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1931, and 1930, respectively.

² Shreveport, La., not included.

³ Barre, Vt., Springfield, Ill., Covington, Ky., Boise, Idaho, and Spokane, Wash., not included.

⁴ Barre, Vt., not included.

⁵ Springfield, Ill., not included.

⁶ Covington, Ky., not included.

⁷ Boise, Idaho, not included.

⁸ Spokane, Wash., not included.

Summary of weekly reports from cities, November 29, 1931, to January 2, 1932—
Annual rates per 100,000 population, compared with rates for the corresponding
period of 1930-31—Continued

SMALLPOX CASE RATES

	Week ended—									
	Dec. 5, 1931	Dec. 6, 1930	Dec. 12, 1931	Dec. 13, 1930	Dec. 19, 1931	Dec. 20, 1930	Dec. 26, 1931	Dec. 27, 1930	Jan. 2, 1932	Jan. 3, 1931
98 cities.....	5	27	4	14	5	10	4	7	3	7
New England.....	55	0	7	0	55	0	14	0	12	0
Middle Atlantic.....	1	0	0	0	0	0	0	0	0	0
East North Central.....	0	1	2	3	4	6	4	2	7	5
West North Central.....	4	48	13	122	4	48	10	43	4	46
South Atlantic.....	0	0	0	0	0	0	0	0	0	0
East South Central.....	0	0	0	0	0	0	0	0	0	0
West South Central.....	3	14	17	17	3	15	7	17	0	17
Mountain.....	0	106	0	150	0	115	0	35	7	9
Pacific.....	10	10	10	6	2	10	8	20	6	10

TYPHOID FEVER CASE RATES

	7	10	9	18	5	18	6	7	15	5
98 cities.....	7	10	9	18	5	18	6	7	15	5
New England.....	5	7	10	19	7	10	2	2	12	2
Middle Atlantic.....	5	8	6	6	5	3	4	3	3	4
East North Central.....	4	10	3	7	1	9	2	12	13	4
West North Central.....	4	6	6	6	0	8	4	6	2	2
South Atlantic.....	16	18	32	4	10	12	14	16	6	4
East South Central.....	12	12	17	18	23	36	12	18	38	48
West South Central.....	27	26	34	22	34	26	44	0	3	3
Mountain.....	26	9	0	0	0	9	0	9	7	18
Pacific.....	10	10	6	6	2	6	4	6	8	6

INFLUENZA DEATH RATES

	7	10	8	10	8	10	9	11	13	16
91 cities.....	7	10	8	10	8	10	9	11	13	16
New England.....	2	5	5	5	5	2	7	2	12	7
Middle Atlantic.....	4	6	8	7	6	5	7	10	5	17
East North Central.....	6	8	3	5	6	10	5	7	10	7
West North Central.....	6	12	6	21	6	15	3	9	9	3
South Atlantic.....	6	20	12	24	12	20	12	24	18	20
East South Central.....	38	13	25	26	6	32	32	19	27	26
West South Central.....	7	14	7	11	17	23	24	32	45	93
Mountain.....	9	18	35	9	17	18	70	0	135	18
Pacific.....	19	2	14	7	14	10	7	17	14	10

PNEUMONIA DEATH RATES

91 cities.....	89	99	98	106	106	111	101	126	121	164
New England.....	91	73	67	119	111	116	94	119	92	160
Middle Atlantic.....	95	101	108	104	116	127	101	126	126	184
East North Central.....	56	77	66	86	63	69	77	94	84	103
West North Central.....	88	132	112	150	103	96	118	117	103	180
South Atlantic.....	146	154	140	134	142	138	132	174	174	230
East South Central.....	95	155	113	123	170	110	113	140	151	207
West South Central.....	135	128	104	162	142	135	131	189	152	199
Mountain.....	122	132	87	159	200	220	226	194	172	264
Pacific.....	77	60	130	60	122	127	89	135	175	133

¹ Shreveport, La., not included.

² Barre, Vt., Springfield, Ill., Covington, Ky., Boise, Idaho, and Spokane, Wash., not included.

³ Barre, Vt., not included.

⁴ Springfield, Ill., not included.

⁵ Covington, Ky., not included.

⁶ Boise, Idaho, not included.

⁷ Spokane, Wash., not included.

⁸ Barre, Vt., Springfield, Ill., Covington, Ky., and Boise, Idaho not included.

FOREIGN AND INSULAR

SMALLPOX ON VESSEL

Brazilian ship "Jaboatao" at New Orleans.—According to information dated January 8, 1932, the Brazilian steamship *Jaboatao* from Santos, Victoria, and Bahia, Brazil, arrived in New Orleans with one case of smallpox on board. The patient was taken to the quarantine station hospital, and the crew and pilot were vaccinated. The living quarters of the ship were fumigated, and the crew were detained at the quarantine station to remain until vaccination became protective or until they were placed on board the ship, which was to return directly to Brazil within five days.

CANADA

Provinces—Communicable diseases—Week ended December 26, 1931.—The Department of Pensions and National Health of Canada reports cases of certain communicable diseases for the week ended December 26, 1931, as follows:

Province	Cerebro-spinal fever	Influenza	Lethargic encephalitis	Polio-myelitis	Typhoid fever
Prince Edward Island ¹					
Nova Scotia		1			1
New Brunswick					1
Quebec				5	8
Ontario	1	1	1		8
Manitoba					1
Saskatchewan	1				
Alberta ¹					
British Columbia				1	1
Total	2	2	1	6	20

¹ No case of any disease included in the table was reported during the week.

Quebec Province—Communicable diseases—Week ended December 26, 1931.—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the week ended December 26, 1931, as follows:

Disease	Cases	Disease	Cases
Chicken pox	63	Polio-myelitis	5
Diphtheria	29	Scarlet fever	65
German measles	1	Tuberculosis	20
Measles	110	Typhoid fever	8
Mumps	26	Whooping cough	48

CUBA

Habana—Communicable diseases—Four weeks ended January 2, 1932.—During the four weeks ended January 2, 1932, certain communicable diseases were reported in the city of Habana, Cuba, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Diphtheria.....	10	4	Scarlet fever.....	4	—
Malaria ¹	10	1	Tuberculosis.....	15	2
Measles.....	15	—	Typhoid fever ¹	8	2

¹ Many of these cases are from the island, outside of Habana.

PANAMA CANAL ZONE

Communicable diseases—November, 1931.—During the month of November, 1931, certain communicable diseases, including imported cases, were reported in the Panama Canal Zone and terminal cities as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Cerebrospinal meningitis.....	1	—	Pneumonia.....	—	25
Chicken pox.....	16	—	Scarlet fever.....	1	—
Diphtheria.....	3	—	Tuberculosis.....	—	25
Dysentery (amebic).....	2	—	Typhoid fever.....	1	—
Malaria.....	56	2	Whooping cough.....	17	—
Measles.....	22	—			

PERU

Lima—Poliomyelitis.—According to information dated January 7, 1932, 21 cases of poliomyelitis were reported in Lima, Peru.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

From medical officers of the Public Health Service, American consuls, International Office of Public Hygiene, Pan American Sanitary Bureau, health section of the League of Nations, and other sources. The reports contained in the following tables must not be considered as complete or final as regards either the list of countries included or the figures for the particular countries for which reports are given.

CHOLERA

[C indicates cases; D, deaths; P, present]

Place	Week ended—															
	June 28— July 25, 1931	July 26— Aug. 22, 1931	Aug. 23— Sept. 19, 1931	Sept. 20— Oct. 17, 1931	November, 1931				December, 1931				January, 1932			
					Oct. 24	Oct. 31	Nov. 7	Nov. 14	Nov. 21	Nov. 28	Dec. 5	Dec. 12		Dec. 19	Dec. 26	
Ceylon: Colombo.....																
China:																
Canton.....																
Hankow.....																
Shanghai.....																
Swatow.....																
India.....																
Bombay.....																
Calcutta.....																
Chittagong.....																
Karikal.....																
Madras.....																
Moulmein.....																
Negapatam.....																
Rangoon.....																
India (French):																
Chanderagor.....																
Pondicherry.....																
India (Portuguese)																
Indo-China (see also table below):																
Cochin-China—Rachgia.....																
Phnompenh.....																

PLAGUE

[C indicates cases; D deaths; P present]

Place	Week ended—												
	October, 1931				November, 1931				December, 1931				Jan. 2, 1932
	3	10	17	24	31	7	14	21	28	5	12	19	26
Algeria:													
Algiers.....													
Philippeville.....													
Argentina: San Juan Province.....													
Azores:													
San Miguel Island.....									2	3			
Tercera Island.....									0	1			
British East Africa (see also table below):													
Tanganyika.....									4	2			
Uganda.....													
Ceylon: Colombo.....													
Plague-infected rats.....													
Chile: Santiago.....													
China:													
Shansi Province ¹													
Shensi Province.....													
Dutch East Indies:													
Batavia and West Java.....													
Java and Madura.....													
Ecuador (see table below).													
Egypt:													
Alexandria.....													
Assiout.....													

¹ On July 27, 1931, 1,259 cases of plague were reported in Chiohe and Changchow, China, since April. On Sept. 19, 1931, 18 deaths were reported in Changchuanpu and new cases in Kaiming and Fengtien.

² On Oct. 17, 1931, plague epidemic was reported in western Shansi Province, China, with 2,000 deaths at Hsinghsien.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

PLAGUE—Continued

[C indicates cases; D deaths; P present]

Place	June 28-30, 1931	July 25-Aug. 22, 1931	Aug. 23-Sept. 19, 1931	Week ended—												Jan. 2, 1932			
			Sept. 26, 1931	October, 1931						November, 1931				December, 1931					
				3	10	17	24	31	7	14	21	28	5	12	19		26		
Egypt—Continued.																			
Behlra.....			2																
Dakalia.....	1	2																	
Girga.....																			
Kena.....																			
Minieh.....	12																		
Port Said.....	4	2																	
Tanta.....	1																		
France: Rouen—Devilleles.....		2																	
Hawaii Territory:																			
Hawaii—Hamakua—Plague-infected rats.....																			
Maul Island—																			
Halimale—Plague-infected rats.....																			
Kula District.....		1																	
Makawao—Plague-infected rats.....																			
Pala—Plague-infected rats.....																			
Panulo—Plague-infected rats.....																			
India.....	221	684	723		1														
Bassala.....	128	440	772																
Bombay.....	4	2	4																
Burma.....	3	2	4																
Madras Presidency.....	12																		
Plague-infected rats.....	6	47	57																
Burma.....	48																		
Madras Presidency.....	16																		
.....	10																		
.....	21																		
.....	9																		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

PLAGUE—Continued

[C indicates cases; D, deaths; P, present]

Place	June, 1931	July, 1931	August, 1931	September, 1931	October, 1931	November, 1931	Place	June, 1931	July, 1931	August, 1931	September, 1931	October, 1931	November, 1931
British East Africa (see also table above):							Peru—Continued.						
Kenya.....	C 154	484	235	14	64		Huancabamba—Ayacaba.....					7	
Ecuador.....							Huancabamba.....					6	
Alamor Parish—Los Hoyos.....	C			1	3		Huancabamba—Chancay.....					1	
Amaluza Parish—Cungochapa.....	C				2		Plague-infected rats.....						
Calvas Canton.....	C			4	1		La Sumana—Huacayoc.....						
Carimanga.....	C						Lima—Lima.....						
Ovejuna.....	C	1					Lima—Lima (haciendas).....						
Celicia Canton—Choras.....	C				1		Lima—Lima.....						
Loja Canton.....	C						Pallas—Trujillo.....						
Lajas.....	C			20			Paito—Huacayoc.....						
Namuro.....	C				2		Petrovilles—Chancay.....						
Paterillo.....	C	1			7		Quispampa—Huancabamba.....						
Tuburo.....	C			1	1		San Pedro.....						
Pallas Canton—San Antonio.....	C			1	3		Supa—Chancay.....						
Indo-China.....	D 2	1		1	1		Senegal:						
Madagascar (see also table above):							Beol.....						
Ambositra Province.....	C	15	1	1	1		Dakar.....		27	101	13	6	2
Antsirabe Province.....	D	15	13	22	19	10	Diourbel.....		13	88	8	2	
Miarinarivo Province.....	D	12	12	22	14	4	Longa.....		64	96	45	4	
Moramanga Province.....	D	7	7	19	12	6	Rufisque.....		56	73	31	4	
Tananarive Province.....	D	1	1	3	11	63	Thies.....						
Peru.....		10	5	45	65	63	Tivouane.....						
Barranca—Chancay.....	D	9	5	44	63	62							
Callao—Plague-infected rats.....	D	5	3	10	2								
Chepen—Pacasmayo.....	D	1	2	14	2								
Ezen—Chiclayo.....	D												

1 Reports incomplete.

SMALLPOX
[C Indicates cases; D, deaths; P, present]

Place	Week ended—																	Jan. 2, 1932
	June 25—July 2, 1931				October, 1931				November, 1931				December, 1931					
	July 25, 1931	July 26, 1931	Aug. 1, 1931	Sept. 19, 1931	Sept. 20, 1931	3	10	17	24	31	7	14	21	28	5	12	19	
Algeria:																		
Algiers:	C	1										1						1
Constantine:	C																	
Brazil: Porto Alegre (airline):	C	41	34	48		12	18	16	7	24	3	23	9					
British East Africa: Tanganyika:	C	149	1	1	50	8	2	1,121	53	18								
British South Africa:	C	17			5	4		91	2	2								
Northern Rhodesia:																		
Southern Rhodesia:	C	21	26					1										
Canada:																		
Alberta:	C	1	1			12			1	2	2	1		2	1		9	
British Columbia:	C	2	5	2							1	1		1				
Manitoba:	C			1														
Winnipeg:	C																	
Nova Scotia:	C																	
Ontario:	C	35	5	6	6	2	2	1	9	7	3	5	3	2	5	1	10	2
Kingston:	C																	
Ottawa:	C				1	5	2	1		4	3	5						
Toronto:	C																	
Quebec:	C	1																
Saskatchewan:	C	42	26	33	1	6	3	1	11	3	1	18	12	8	9	8		
Regina:	C																	
Chile:																		
Antofagasta:	C	1																
Santiago:	C																	
Taiwan:	C																	
China:																		
Tsao-ping:	C																	
Amoy:	C	2	1	1	1	1	1	1	1	1	1	6	2	5	11	28	60	
Canton:	C	2	1	1	1	1	1	1	1	1	1	4	1	4	7	25	22	
Foochow:	C																	
Hankow:	C	P	P	P	P	P	P	P	P	P	P	P	6	3	2	3	P	
Manchuria—Dairen:	C	3	3			1				5	4	9	5	4	11			
Nanking:	C																	
Shanghai:	C																	
Foreigners only:	C																	
Including natives:	C	3	1	25	20	17	17	1	6	2	12	16	13	20	23	16		X
Tientsin:	C	6	1	7	8					1	1		6	8	7	8		

CHINA: AMOY, CANTON, HANKOW, MANCHURIA, NANKING, SHANGHAI, TIENTSIN

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX—Continued

[C indicates cases; D, deaths; P, present]

Place	Week ended—																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	June 28— July 25, 1931			July 26— Aug. 2, 1931			Aug. 23— Sept. 19, 1931			October, 1931				November, 1931				December, 1931			Jan. 2, 1932																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
										Sept. 26, 1931																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Chosen (see table below).																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						</

India (French):

Chander Nagar.....

Kerchol.....

[illegible]

¹ Imported case.

CHOLERA PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

TYPHUS FEVER—Continued

[C indicates cases; D, deaths; P, present]

[illegible]

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

YELLOW FEVER

(C indicates cases; D, deaths; P, present)

[illegible]

